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IAFOR Journal of Education: Studies in Education

Volume 11 – Issue 3 – 2023

Edited by Pearl Subban
Monash University, Australia

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From the Editors

Nurturing Inclusive Education – A Call for Social Justice and Diversity

In our rapidly evolving world, education plays a pivotal role in shaping the future. Its transformative power can either perpetuate inequalities or serve as a catalyst for social justice, equity and the celebration of diversity. The mission of this annual issue of the *IAFOR Journal of Education,* Studies in Education issue, is to explore the multifaceted aspects of social justice and diversity across the educational landscape. By fostering an inclusive and equitable educational environment, we have the potential to empower learners from all backgrounds and ensure that no one is left behind.

As the selected articles in this issue reveal, Inclusive Education is an essential foundation for achieving social justice and diversity in the classroom. The selection considers this essentiality drawing from scholarly pieces across the globe. Each contribution reinforces the view that all students, regardless of their background, abilities, or characteristics, should have equal access to quality education. The findings of each piece reiterate and acknowledge that diversity is not a challenge to be overcome but a strength to be embraced. It encompasses students of all races, genders, socioeconomic statuses, abilities, and cultural backgrounds. It is vital for educators to recognize that inclusion is not just an idea, but its active implementation involves providing the necessary support and accommodations for students to thrive in a genuinely accepting environment. Inclusive education requires curricular adaptations, professional development for educators, and fostering an open and accepting learning culture.

The selected articles span both school and higher education, reflecting on inclusive practices across learning areas, and in countries with clear policy, and in other countries with emerging policies on inclusion. In this regard, the articles also underline the view that to promote social justice, it is crucial to address the persistent educational disparities that have come to exist in contemporary education. Disparities in educational access, quality, and outcomes disproportionately affect marginalized communities, perpetuating cycles of poverty, alienation and inequity. This issue calls for research and advocacy to highlight these disparities and find innovative solutions to bridge the educational divide.

It is evident that educational leaders and policymakers must engage in transformative reforms that prioritize equitable resource allocation, culturally responsive teaching practices, and evidence-based interventions to narrow the gap. By eradicating these disparities, we create a more inclusive society where every student has the opportunity to reach their full potential. In the context of this issue, diversity encompasses more than just demographics; it includes a broad spectrum of cultural, linguistic, and social differences. In this issue, we explore the importance of cultural competence and sensitivity in education. To promote social justice, educators must not only acknowledge these differences but actively celebrate and integrate them into the curriculum. Cultural competence training and the inclusion of diverse perspectives in the learning materials can contribute to a richer educational experience for all students. This issue spotlights the significance of a global perspective on more equitable

education, that takes cognisance of the range of intersections and diversity markers that shape learner profiles. Here, it is important that learning contexts create opportunities that equip students with the skill to navigate an increasingly interconnected world with empathy, open-mindedness, and respect for different worldviews.

This issue serves as a clarion call for all educators, researchers, policymakers, and stakeholders to prioritize equitable educational opportunities. By promoting inclusive education, addressing educational disparities, and fostering cultural competence, we can create a more equitable and inclusive educational environment.

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Article 1:
Strategies to Succeed with Inclusion in a Diverse Learning Environment

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Hybrid Learning Experiences of College Students with Special Education Needs

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Effects of Board Game with Different Debriefing Preferences on Cyberbullying Prevention

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Strategies to Succeed with Inclusion in a Diverse Learning Environment

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Abstract

Even though inclusion is a strong principle in the Norwegian educational system, there are challenges when it comes to creating inclusive learning environments. This study investigates the following: a) What challenges are there in the learning environment in primary school from a teacher's perspective, and b) what strategies do teachers employ to address these challenges and create an inclusive learning environment? The framework for data collection in this study has been a project called SAMM: *A Systematic approach to work with mastery, participation, and motivation*, where a method based on health promotion theory and self-determination theory has been developed and applied. Ten teachers were interviewed, after applying a five-step method where the students identify what is important for them, success factors and obstacles, and make plans regarding what to focus on and what to do. The teachers interviewed applied the five-step method with focus on life mastery, subjects, or the social environment. A summative, traditional content analysis has been conducted, based on categories identified in a preliminary study, which investigates challenges and solutions in a diverse learning environment from a student's perspective. The three main categories in the analysis were relational challenges, structural challenges, and individual challenges. The study concludes that it is important to work systematically and over time to create an inclusive learning environment. In line with different studies that have investigated interventions for children with behavioural problems in middle school, it is also recommended to facilitate self-regulation and choice-making to create an inclusive learning environment.

Keywords: diversity, inclusion, participation, self-regulation, primary school, learning environment

Several formal guidelines within the Norwegian educational system ensure inclusion and the establishment of a safe learning environment in school (Report to the Storting 6, 2019-2020; The Education Act, 1998, § 9a). However, despite the good intentions of politicians (Tveitnes, 2022), schools may not necessarily implement inclusive practices. Inclusion was previously narrowly defined as the inclusion of marginalized students with special needs in regular schools (UNESCO, 1994), where all students belonged to the same community. More recent definitions take a broader perspective, describing inclusion as a process that addresses various needs that all students have. This includes ensuring student participation, and allowing students to influence the learning environment and the organization of teaching (Report to the Storting 6, 2019-2020; UNESCO, 2005). Another aspect of inclusion, as emphasized by Haug (2014), a Norwegian professor in educational research, is that students must benefit from the education, either through social learning or subject-based learning, for education to be considered inclusive. As a result, to ensure inclusion in schools, teachers must adapt to the students' preferred learning styles rather than expecting students to adapt to their own preferred teaching styles. This becomes a challenge in regular schools where classes often comprise students with diverse needs and preferences.

The current study investigates how teachers who have implemented an approach to promote student participation have addressed various challenges in the learning environment to facilitate inclusion. The approach encompasses a five-step method (Horverak, 2023), developed in a project centered on mastery, participation, and motivation. In this method, students are guided to 1) identify what is important for them, 2) recognize their strengths and areas of satisfaction and 3) identify potential obstacles hindering them from achieving their goals, 4) plan what to focus on, and 5) determine specific actions they will take to effect change. This method has been applied with focus on life mastery, subjects, and the learning environment. Using this five-step method as a framework, teachers have identified the obstacles faced by their students and experimented with various strategies to address these challenges. Both challenges and strategies are investigated in the analysis in the current study. The five-step method is grounded in self-determination theory (Ryan & Deci, 2017), which underscores autonomy, competence, and relatedness as essential needs to foster intrinsic motivation. Additionally, it draws from health promotion theory (Antonovsky, 2012), which asserts that to experience a sense of coherence, an individual must comprehend situations, feel capable of handling them, and perceive their actions as meaningful. When applied to subjects, the method aligns with self-regulation theory, wherein students are actively engaged in identifying problems, examining solutions, and planning and evaluating their own learning process (Boekaerts & Niemivirta, 2005).

The research question in this study is two-fold: a) What challenges are there in the learning environment in primary school from a teacher's perspective, and b) what strategies do teachers employ to address these challenges and create an inclusive learning environment? The study's sample is limited to teachers who have participated in the aforementioned project. This selection was made with the aim of providing the most effective answers to the research questions, by having informants who have focused on identifying student obstacles and tried out different strategies as potential solutions. The study's primary objective is not to generalize

or to find a representative sample but to discover exemplary strategies that can be applied to address challenges when working with creating an inclusive learning environment, which can be of value to other practitioners.

In the following, the theory of self-determination will be explored in greater detail, as along with research conducted in an educational context that is grounded in this theory. Since this article primarily focuses on student diversity, there will also be a summary of research on students with behavioural difficulties, with elaborations on specific programs that have provided support to such students. Subsequently, the research method will be outlined, including details about the sample, data collection and analytical approach. The results will be presented, comprising a first section on challenges the teachers have identified, and a second section on strategies they have applied to address these challenges. In the discussion section, the findings will be related to theory of inclusion, self-determination theory and the review of research on programmes designed for children with behavioural problems. In addition, the validity of the findings is discussed. Finally, the findings of the study are summarized, and recommendations for future research will be provided.

Literature Review

In self-determination theory, there is a division between extrinsic motivation, facilitated through reward systems, and intrinsic motivation, facilitated through meeting the needs of competence, autonomy, and relatedness (Deci & Ryan, 2000). The competence need is closely related to mastery and having an expectation to master situations, or self-efficacy, as Bandura (1997) describes it. Having autonomy in a learning context means being in control of one's own learning process, setting goals, making plans, carrying plans out and adjusting them as needed (Skaalvik & Skaalvik, 2018). Relatedness, the third basic need, concerns the need to belong to a community. Research has shown that intrinsic motivation, characterized by an interest to learn, is crucial for both academic performance and well-being in school (Deci & Ryan, 2000).

In their review of research on self-determination theory in an educational context, Ryan and Deci (2020) report on several studies that support a positive relation between autonomy-based motivation in classrooms and academic achievement in various subjects (Grolnick et al., 1991; Grolnick & Ryan, 1987; Guay et al., 2010; Howard et al., 2017; Katz et al., 2014). They also refer to studies that have demonstrated correlations between autonomy-supportive teachers and intrinsic motivation, perceived competence, and self-esteem (Deci et al., 1981; Ryan & Grolnick, 1986). Autonomy-support is a central element in several interventions based on self-determination theory (Ryan & Deci, 2020). This means that teachers facilitate students to take ownership of their own learning process and provide different possibilities are provided through choices of tasks and procedures that may engage students. By making choices, students experience autonomy and intrinsic motivation (Bao & Lam, 2008; Reeve et al., 2003, Patall et al., 2008). Studies have also demonstrated correlations between autonomy-support in combination with clear structures concerning expectations, goals, and directions on the one hand, and better use of self-regulation strategies and lower anxiety on the other (Hardré &

Reeve, 2003; Vansteenkiste et al., 2012). Autonomy-support and clear structure are also combined in the five-step method applied in the current study, serving as a framework for teachers and students to identify obstacles and find solutions together (Horverak, 2023).

Learner Diversity and Behavioural Problems

As highlighted by the American child psychologist Greene (2011), many children with social, emotional, and behavioural problems are often misunderstood, and addressing challenging behaviour incorrectly can perpetuate the issue. Greene challenges the behaviouristic approach to behavioural problems, which may involve detention and expulsion, and emphasizes that children are not robots that may be programmed and controlled. He asserts that behavioural problems arise when expectations to the child are higher than the child's capacity to respond in an acceptable way. Children are diverse, and when different children are subjected to similar expectations, it can lead to challenging behaviour, particularly in children who do not have age-adequately developed mindsets, or different disabilities.

Many students in schools exhibit behavioural problems, such as ADHD (attention deficit hyperactivity disorder) (Olsen & Mikkelsen, 2015). These issues often result in disruption in the classroom, which teachers may not feel confident in managing (Overland, 2007). Signs of ADHD include attention difficulties, hyperactivity, impulsiveness, and concentration challenges. (Olsen & Mikkelsen, 2015). Children with ADHD are easily distracted and struggle with self-regulation (Ogden, 2022). Various approaches are used to handle and support students with behavioural problems to improve their adaption to everyday school life. A recent literature review focused on middle school students, aged 11 to 15 years, has identified numerous programmes that have had an effect on this student group (Alperin et al., 2021). These programmes generally include some type of self-regulation practice, which is aligns with the five-step approach applied in the present study (Horverak, 2023).

Programmes for Students with Behavioural Problems

Programmes that include giving students with behavioural problems choices in the learning situation aim at improving working ability and reducing disturbing behaviour in class. Kern et al.'s study (2002) on the programme *Choice-making* included six students with different behavioural disorders, that were exposed to an intervention allowing them to make choices concerning what to work with and how to do this. For example, they could choose whether to work individually on a computer or in collaboration with peers, or they could choose the topic or materials to be used in class. The teacher planned different options based on the students' interests. Engagement and disruptive behaviour were measured through observation, and the intervention period included phases of a few days, alternating between baseline phases of teacher-controlled teaching and intervention phases with choices. The results showed an increase in engagement and a decrease in disruptive behaviour in both intervention phases. In the baseline periods, there was a decrease in engagement and an increase in disruptive behaviour. The study generally shows a positive effect of giving students with behavioural problems choices, which means more autonomy, in the learning situation.

The Challenging Horizon Programme is another programme that includes interventions on self-regulation, in addition to practising social skills (Evans et al., 2007). The intervention covers academic skills such as note-taking and using organizational strategies like monitoring their own learning activities by taking notes on exercises performed, as well as social skills such as problem solving, practice of prosocial behaviour, mastering anger, and conversational skills. The study involved a three-year-long intervention with 42 students in test-groups and 37 in control-groups. The results based on evaluations from teachers and parents showed some improvements in social and academic functioning over time in the intervention group. The findings were not significant, but some suggested a cumulative increase over time that might result in long-term effects on attention problems, hyperactivity, and social functioning (Evans et al., 2007).

A programme called *A Classwide Peer-assisted Self-management Program* (Mitchem et al., 2001) was implemented in three regular seventh-grade classes, with ten students facing different behavioural challenges and learning difficulties receiving an intervention. The classes were educated on what self-control means, and they roleplayed class rules. The class rules were displayed on the classroom wall, and every student in class was assigned a partner. The results of the study showed that the time all the students in the classes concentrated on tasks increased, including the students with specific challenges. During the intervention period, they were focused on tasks 80 % of the time, which was an increase from 35 % at the baseline. Overall, there was an improvement in the classes regarding behaviour and social skills, and this positive change persisted as the programme gradually ended.

Another study with a focus on self-regulation describes an intervention called *I Control* (Smith et al., 2017). This programme includes knowledge presented by the teacher and an IT-based mind-training lab. It consists of four units that may influence cognition and emotions, ultimately strengthening self-regulation. Unit one concerns working memory, and the students are presented with different tasks to solve. Unit two focuses on setting goals, and the students learn to set value-based goals and find realistic strategies to reach them. The third unit focuses on regulation of emotions, and the students learn to identify emotions and find effective strategies to regulate unwanted emotions. The fourth unit concerns problem-solving, and the students are trained in skills they need to solve everyday problems. The study involved 167 students with behavioural problems, from 17 classes, whereof nine classes were intervention groups and eight were control groups. Based on teachers' reports, the findings showed a positive effect on the students' executive functions (Smith et al., 2017), which involve the brain's performing functions such as starting on a task, generating ideas and problem-solving strategies (Olsen & Mikkelsen, 2015). In addition, all the students reported improved emotional control, meaning they could better moderate inappropriate emotional outbursts (Smith et al., 2017), a result corroborated by the teachers' reports. Regarding behavioural problems, the results indicated a tendency that students with the lowest initial scores, meaning the students who needed the intervention the most, exhibited the most significant positive development in behaviour.

A programme called *Coping Power Universal* (Muratori et al., 2020) that has been applied to reduce emotional and behavioural problems, as well as promoting prosocial behaviour, focused on developing mastery strategies. The programme includes six main modules, where the first module concerns reaching short-term and long-term goals, the second is about developing emotional awareness, the third focuses on emotional regulation, the fourth involves taking different perspectives, the fifth is about problem solving and the sixth includes collaborating with peers. The sample in this study included 839 students, whereof 29 of them had some form of intellectual challenge or sensory issues. The findings showed that the programme provided the students with useful strategies, reduced mental problems, and increased prosocial behaviour.

The different programmes described all include various strategies related to self-regulation, problem-solving, goal setting and raising consciousness. These elements are also included in the five-step approach, which serves as the framework for data collection in the current study and has been applied as a universal measure in ordinary classes and schools where there is student diversity. The application of universal self-regulation strategies in classrooms has been questioned, as students who benefit most from these types of strategies, often are the students who perform well academically. Therefore, these universal approaches may inadvertently widen the gap between students (Madsen, 2020). Nevertheless, the studies described above demonstrate that also students struggling with self-regulation, or with behavioural problems, can benefit from interventions that include self-regulation practices and social skills training.

Method

This study applies a qualitative research design to investigate teachers' understanding of challenges in the learning environment and strategies they employ to address these challenges. The study may be defined as a multiple-case study (Bryman, 2012, p. 77), as the data material comprises interviews from 10 informants. The data was collected during the spring of 2021, in relation to reporting on a project, where a five-step method for mastery, participation and motivation was implemented. This method will be presented in greater detail before describing the procedure of data collection, the sample, and the analysis approach.

The Five-Step Method

The five-step method places its emphasis on aiding students in taking control of their own lives and learning processes by encouraging them to engage in reflection, both as a class and individually, through five key questions. The first three questions pertain to situational assessment, involving the identification of values, success factors and obstacles. Students are asked to reflect on 1) what is important for them to be content in school, 2) what skills do they already master, and with what are they content, and 3) whether there are any hindrances obstructing them from attaining their goals and desires (figure 1, previous published in Horverak & Aanensen, 2019, Horverak, 2020, Horverak & Langeland, 2022)?

Figure 1
The Five-Step Method
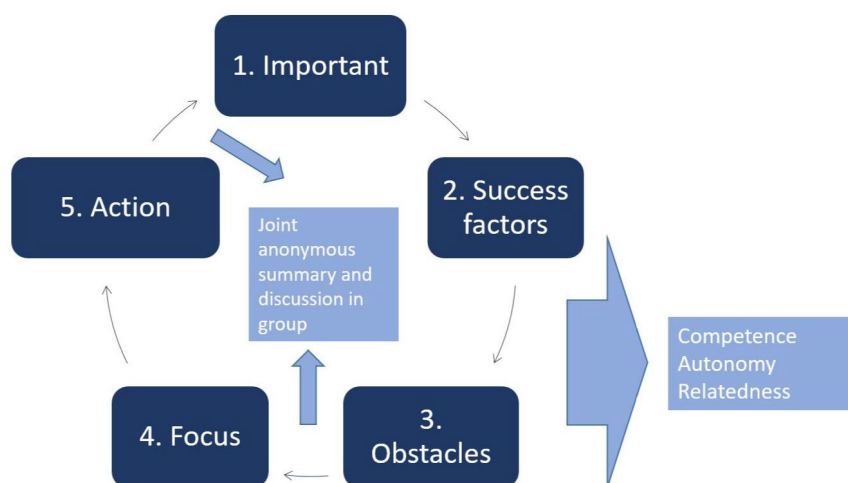
The teacher initiates a class discussion on these three questions, and this is followed up by asking the students to write, or draw for the younger ones, answers to the questions. Depending on grade, the answers are written anonymously, as one of the points here is that the students write to themselves and not to the teacher. The teacher collects the student notes and compiles a summary of anonymous reflections for the next session, which is presented to the class. Then the teacher asks the students 4) what they want to focus on, meaning what to work with improving, or what obstacles to deal with, based on the answers to the first three questions. Following this, the students discuss strategies that could be applied, or 5) what action to take. Some of the strategies concern what they can do themselves, other strategies require facilitation from the teacher. When applying the method to subjects, the teacher asks the students to reflect on 1) what is important in the subject, 2) what they have already mastered and 3) what they find challenging. Subsequently, the students make plans on 4) what they intend to focus on and 5) how they plan to work on it. The third variant of the method is adjusted to working on the learning environment, and is implemented through the student councils, meaning that student representatives apply the method in their classes with a collective focus and receive support from their teachers and the adult responsible for the student council.

Data Collection

A semi-structured interview guide was utilised, with some pre-defined questions and topics, that were adjusted in the interview process (Bryman, 2012, p. 471). The interview guide comprised three sections. The first section consisted of questions on the teachers' background concerning working experience. The second section contained questions concerning the learning environment, and challenges and strategies they employed to address the challenges. The third section included questions concerning the implementation of the five-step method, how they had applied it, what they focused on specifically and whether there was a change in the learning environment. Notes were taken during the interviews, and all data collected was anonymous.

Sample

Purposive sampling was chosen to ensure that the participants had diverse experience relevant to the research question (Bryman, 2012, p. 418). This resulted in 10 informants, whereof two were responsible for the student councils in their schools and had applied the five-step method through the student councils with a focus on the learning environment. The teachers had different backgrounds and worked on different levels in primary school (table 1).

Table 1
Sample

School	Teacher	Years working experience	Years in the current school	Grades taught in general	Grade taught at time of interview
School 1	1	8	7	5.-7. grade	6. grade
School 1	2	22	20	1.-4. grade	1. grade
School 1	3	3	3	1.-4. grade	3. grade
School 1	4	35	23	Student council	Student council
School 2	5	18	18	Student council	Student council
School 3	6	30	21	2.-7. grade	5. grade
School 3	7	15	15	3.-7. grade	3.-4. grade
School 3	8	6	4	5.-7. grade	6.-7. grade
School 4	9	23	15	1.-4. grade	1.-2. grade
School 5	10	4	4	1.-10. grade	5. grade

Analysis

A summative, traditional content analysis (Hsieh & Shannon, 2005) was applied to identify the challenges the teachers identified in the learning environment. A preliminary analysis of student data related to the same project resulted in the three main categories relational challenges, structural challenges and individual challenges, and these categories provided a framework for analysis in the current study. The codes that emerged during the analysis were categorised according to these main categories. The codes closely represented the content, resulting in a substantial number of codes. Therefore, these codes were further organized into subcategories within each main category. The number of occurrences of different challenges is reported to give an indication of how many informants mention the different challenges. The strategies employed by the teachers to address these challenges were analysed using a content analysis, without counting occurrences, as the purpose here was to show different strategies that may be applied to establish an inclusive learning environment.

Findings

The first findings present the challenges the teachers experienced in the learning environment. There are 20 occurrences of relational challenges, 13 occurrences of structural challenges and 39 occurrences of individual challenges (Table 2).

Table 2

Challenges in the Learning Environment from a Teacher's Perspective (n = 10)

Main category	Subcategory	Code	Occurrences
Relational challenges	Exclusion	Bullying	2
		Keeping out	4
		Rude comments	5
	Conflict	Disagreement	2
		Dispute over friendships	1
		Drama	1
	Aggressive behaviour	Throwing things	2
	Performance pressure	Competition	1
	Relations with adults	Insecurity	1
		Unfairness	1
		Total	*20*
Structural challenges	Rule breaking	Noise	8
		Not raising hand	1
		Mess	1
	Learning tools	Digitalization	3
		Total	*13*
Individual challenges	Learning difficulties	Challenge in the subject	7
		Dyslexia	1
		Challenge to self-regulate	3
		Lack of mastery	2
		Lack of concentration	1
		Difficulties finding words	1
	Socio-emotional challenges	Pressure from expectations	2
		Lack of motivation	3
		Passivity	1
		Impatience	3
		Restless boys	1
		Inappropriate behaviour	2
		Behavioural difficulties	3
		Emotional difficulties	2
		Grief	1
		Lack of sleep	2
		The invisible children	1
		School anxiety	1
		Low self-esteem	1
		Total	*39*

The *relational challenges* are exclusion, conflicts, aggressive behaviour, performance pressure and relations with adults. Exclusion includes instances of bullying (2), keeping others out (4) and rude comments (5), and conflicts include disagreement (2), dispute over friendships (1) and drama (1). These categories concern students' interaction with one another. One informant said "Mobiles and social media is one of the bigger problems now. Little things, keeping out, when it is a small place and only one group, one feels left outside". Another informant mentioned the rude language: "There are probably quite a few that feel they are being teased by the older students, and the do not like the rude language". Aggressive behaviour involves the throwing of objects (2), such as chairs and stones. One informant also mentioned that the

students feel insecure in relation to people they do not now, and another mentioned that the students feel that it is unfair when they are treated differently.

The *structural challenges* involve breaking rules and challenges with learning tools. Breaking rules includes noise (8), students who speak without raising hands (1) and mess in the classroom (1). One informant reflected on the fact that the degree of noise varied depending on the teacher: "I think it is challenging when others have the class, and not me, especially for the more dutiful students. They struggle when it is noisy". The challenge with learning tools concern digitalisation (3), that there has been a fast increase in use and availability of digital tools, and that it is difficult to find a balance.

The *individual challenges* comprise different learning difficulties and socio-emotional challenges. Regarding different learning difficulties, the informants mentioned general challenges in subjects (7), such as writing and mathematics, dyslexia (1), difficulties with self-regulation (3), lack of mastery (2), lack of concentration (1) and difficulties with finding the right words (1). Lack of mastery is also related to noise in classes by one informant: "when the students do not master, this results in more noise". Socio-emotional challenges include pressure from expectations (2), as commented by an informant: "Some feel there is so much they are expected to deal with, this is something of the most challenging […] the requirements are felt as too much compared with what they can manage". Lack of motivation (3) is another challenge, as one of the informants said: "The student surveys show that the students can be more active, or we want them to be more motivated and that they take more responsibility for their own learning". The informants also mentioned passivity (1) and impatience (3), which is related to difficulties with working for longer periods with exercises. Other informants mentioned restless boys (1) and inappropriate behaviour (2), such as destroying things outside or making some serious and strange comments. In addition, specific behavioural difficulties, and diagnoses (3) are mentioned. Emotional challenges (2) mentioned are that some students are tough on the outside, but vulnerable on the inside, as one informant describes: "to talk about feelings is very difficult, and he is rather closed and concerned with showing a tough outside, at the same time as he is fragile and easily become upset". In addition, grief (2) is mentioned, lack of sleep (2), the "invisible" children (2), who are quiet and easily forgotten, school anxiety (1) and low self-esteem (1).

The Teachers' Strategies to Meet the Challenges

The strategies described by the teachers are sorted into the main categories: creating structure, providing acknowledgement, raising consciousness , facilitating activities, ensuring student participation and applying strategies concerning the adult role (figure 2). More of the strategies are applied to deal with different challenges.

Figure 2
The Teachers' Strategies

Structure	Acknow-ledgement	Consciousness raising	Activities	Student participation	Adults' role
Boundaries	See the student	Conversation	Playing	Student representatives	Authoritative adults
Routines	Focus on the positive	Poster	Outdoor activities	Girls' group	Collaboration with parents
Reward systems		Campaign		Choices	Collaboration with colleagues

Concerning structural challenges associated with rule breaking, the teachers created *structure* by setting boundaries and routines for the students, as well as applying reward systems. Examples of rewards were that the students could eat cake, watch a movie of their own choice, or do other activities they enjoyed. In terms of structure and routines, the informants mentioned for example that they made plans for the sessions, had the students stand in a line in the morning, and started with silent reading and a clear "good morning".

Another strategy the teachers applied was giving *acknowledgement* to the students. One informant described it as: "Many conversations, little 'I see you', stay in touch and follow up". To address the challenge of low self-esteem, a strategy was to focus on the positive and what they do well. Another informant said that she made a visual tree in the classroom where they put notes on describing positive occurrences, to reinforce positive behaviour in class – "If anyone has heard or experienced something nice, they receive a leaf and put it on the tree". This strategy was applied in relation to question two in the SAMM-method, to identify success factors.

Several of the informants mentioned *consciousness-raising* as a strategy and said that they talked with the students to handle different challenges. For example, they talked about behaviour and what is important for everyone to be okay, as well as addressing grief and how to comfort each other. Conversations with consciousness-raising were often included when applying the five-step method systematically and over time. When asked about whether the systematic work with conversations influenced the class environment, one of the informants

said: "Yes, it is affected positively […] it is more open, so the students dare to speak about problems and thoughts that we can work with as a group, not just as individuals. It strengthens the sense of community". For the students to remember to include each other, which several students chose as a focus area when working with the five-step method, some teachers put posters in the classroom. There was also a campaign to keep the school tidy.

Facilitating *activities* was mentioned by several teachers, more specifically playing different games, or having outdoor activities. For example, one teacher with a noisy class, and a couple of students with behavioural problems, moved the class outside and incorporated activities and games that included running around in the school yard in combination with learning concepts and fact, or they were asked to do an activity, such as laughing for 30 seconds or give someone a compliment, between tasks they solved.

Another strategy mentioned is *student participation*, for example engaging student representatives in the student council to work with finding strategies for addressing challenges in the learning environment. In two of the schools, girls' groups were established, where they applied the five-step method to make the girls become more conscious about including each other. This was combined with activities such as making food and playing games. In addition, the informants mentioned offering choices, both in terms of learning styles and exercises. One informant said that the students were allowed to choose working position, either sitting or lying, or working outside the classroom. Choosing learning tool, such as computer or paper, is another option mentioned by others. Another informant said that the students were to choose what to work with based on what they had written as focus area in their notebooks used with the five-step method. The students were then given different exercises to choose from based on what they had written that they wanted to work with. As one teacher noted: "It is important that the work they have done is made visible, it takes time, so when they have done this job, they deserve to get SAMM-practice on the schedule, and that I have prepared for this". Another informant pointed out that having different options makes the students motivated.

The final strategy mentioned by the informants concerns the *adults' role*. They emphasize the importance of being clear and authoritative adults. In addition, they mention collaboration with colleagues, including teachers and the school nurse, and working together with parents to address different challenges. The teacher who mentioned school anxiety as a problem said that this was solved by talking to the parents. They made an agreement that the girl was going to walk to school with a friend, and that the teacher would meet them outside to greet them in the morning. This approach effectively resolved the situation.

Discussion

This study investigates what challenges the teachers in primary school experience in the learning environment, and what strategies they employ to address these challenges and create an inclusive learning environment. The findings of the study show that there are different relational, structural and individual challenges, and that the teachers worked systematically and consistently to raise consciousness and find solutions to foster an inclusive learning

environment. The importance of systematic, long-term efforts is also highlighted in the studies described from the meta-analysis of interventions related to behavioural problems (Alperin et al., 2021; Evans et al., 2007; Kern et al., 2002; Muratori et al., 2020; Smith et al., 2017).

In this study, the five-step method served as the framework for systematic work with the learning environment. This approach offers professional autonomy for teachers to adapt different strategies to the specific context in collaboration with the student group. The list of strategies employed by the teachers demonstrates the diverse approaches applied, and strategies are adjusted to the different students' needs. Student participation is also emphasised, which is a fundamental element in creating an inclusive learning environment (Haug, 2014; Report to the Storting 6, 2019-2020).

Self-Regulation and Choice-Making

Approaches that promote self-regulation and choice-making for students with behavioural problems, as described in the five-step method (Horverak, 2023) and other programmes presented in the meta-analysis mentioned above (Alperin et al., 2021), may contrast with behaviouristic approaches involving rewards and punishment (Vogt, 2016), which are often found in educational contexts. Reward systems are based on the premise that behaviour can be influenced through extrinsic means (Vogt, 2016). This aligns with a deterministic view, suggesting that humans may be modified by their environment (Johannessen et al., 2010). Related to self-determination theory (Ryan & Deci, 2017), reward systems may lead to extrinsic motivation, where students conform to the teacher's expectations to earn a reward, rather than because they genuinely want to. In this case, the reward itself motivates, not the desired behavioural change. This is not a very robust type of motivation, as the change may fade when the reward is removed. In contrast, by granting students choices, they are given autonomy-support, which is associated with intrinsic motivation (Bao & Lam, 2008; Reeve et al., 2003, Patall et al., 2008), good results in subjects (Grolnick et al., 1991; Grolnick & Ryan, 1987; Guay et al., 2010; Howard et al., 2017; Katz et al., 2014) and positive self-esteem (Deci et al., 1981; Ryan & Grolnick, 1986).

Often, choices are given students as a reward, as described by the informants, and this is not an approach that promotes self-regulation, but rather the opposite. Providing choices as a reward essentially deprives students of their autonomy, as the choices are conditioned by a certain behaviour. This is a control strategy employed by the teacher. This is turned around in the choice-making study referred to above (Kern et al., 2002), which shows that students with behavioural problems improved their concentration during intervention periods when offered choices. In the application of the SAMM-method, as described by the informants, the students are also given choices in the learning process, based on what they have written that they want to focus on. Students are given choices concerning what to work on, and how to do it, rather than being manipulated through rewards for following the teacher's instructions. Providing choices in the learning process also promotes student participation, a key element in the renewed curriculum for the Norwegian schools (Ministry of Education and Research, 2017).

The Authoritative Teacher

Other strategies emphasized by the teachers include establishing clear structures and being authoritative adults, at the same time as giving acknowledgement to the individual students. This aligns with the ideal described in theories on the authoritative teacher (Roland, 2021), which underscore the importance of combining clarity in enforcing rules and regulations with building relations. Research conducted in a Norwegian context based on this theory has shown that achieving this balance may be challenging. A study revealed that students who reported increase in teacher surveillance also reported decrease in emotional support (Ertesvåg, 2009). Finding the right balance between maintaining structure and adhering to regulations on the one hand and acknowledging and adjusting to each individual's needs and building relations on the other hand will probably always be a challenge when working with creating an inclusive learning environment in a classroom with student diversity.

Validity

There are different challenges concerning the validity of this study, as it involves a limited sample selected through purposive sampling related to a project. The findings reported in this study may not be generalizable to other contexts. In addition, the analysis could have been carried out differently, and there might be overlaps between the different factors. For example, noise often results from individual challenges, still, this is coded under the category of structural challenges. Despite these considerations, the study can still provide valuable insights for relevant stakeholders, such as teachers, school leaders and politicians, concerning how to deal with challenges in school and establish an inclusive learning environment. The study's objective is not to find absolute truths, but rather, as is often the case with educational research, to focus on utility (Bachman, 2009).

Conclusion

Implementing a method in the classroom, such as the five-step method described here (Horverak, 2023), enables teachers and students to identify and address challenges in collaboration. The main challenges the teachers identified in the learning environment were *relational challenges* such as exclusion, conflict, aggressive behaviour, performance pressure and relations with adults, *structural challenges* such as rule-breaking and issues with learning tools and *individual challenges*, sorted into the subcategories learning difficulties and socio-emotional challenges. To handle these challenges, teachers applied strategies as creating *structure*, giving *acknowledgement*, raising *consciousness*, facilitating for *activities*, making *students participate* in decision-making and being conscious about the *adults' role* as authoritative, as well as collaborating with colleagues and parents. These strategies may all contribute to an inclusive learning environment, which means that the students are engaged and participate in decision-making, they are part of a community, and they profit socially and in subjects (Haug, 2014). There is a need for further research on the potential of this type of methodology, which aims at being sensitive and respectful of student diversity through emphasizing student participation, and where teachers collaborate with students in diverse

classrooms to find solutions to different challenges that occur and assess how these strategies work for the individual students.

Acknowledgements

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Hybrid Learning Experiences of College Students with Special Education Needs

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Abstract

Higher education institutions increasingly embrace hybrid learning to offer adaptable and variable educational techniques. After the COVID-19 limits were loosened, students could now take in-person and online courses simultaneously. Students engaged in distance learning for almost three years gradually return to class. Although hybrid learning has been the subject of numerous research among typical college students, little is known about how this method of instruction affects individuals with special needs. This descriptive qualitative study examined their opinions and experiences in hybrid learning environments to close this gap. Semi-structured interviews and theme content analysis were used. This study includes students with various diagnoses, including sensory impairments, learning disabilities, physical impairments, and social, emotional, and behavioral disorders. Findings revealed that students' experiences with hybrid learning were marked by efficient learning, safe feeling, a sense of belonging, and expectation setting. College students with special education needs can benefit from efficient learning and a safe feeling. However, it presented difficulties in establishing a sense of belonging and clearly defining expectations, highlighting the need for customized approaches to satisfy their various needs.

Keywords: hybrid learning, inclusive learning, special education needs, student experiences

The transition to online education began when the COVID-19 pandemic first broke out, and limits were put in place by governments all over the world. The rapid shift has allowed educational institutions to adapt to meet the students' varied learning needs. As a result, it has been challenging to facilitate learning and meet the needs of students, and the most vulnerable, such as those with special needs, have been severely affected. Amidst this profound transformation, it has become evident that students' experiences are invaluable for shaping educational practices responsive to the impact of unexpected crises.

After the pandemic, however, teaching and learning were never the same. With the inclusion of new technology, the classroom environment has changed, pedagogical strategies are created to help students achieve their objectives, and face mask use is still required. In addition, we now understand the importance of opening up many learning avenues to respond to extreme circumstances, such as natural catastrophes on a large scale and daily disruptions of practical education (Umiyati, 2022). As a result, teaching and learning have undergone a tremendous transformation. To meet the needs of every student, many learning modalities, including online, blended, and hybrid learning, have been introduced and implemented. Although these teaching strategies are not new, they will continue to provide students with additional possibilities. Several institutions have invested in technologically advanced learning environments to maintain the continuity of teaching (Raes et al., 2020). Huggett (2022) affirms that technology-enabled learning has greatly revolutionized education and allowed new learning opportunities.

In the Philippines, De La Salle-College of Saint Benilde, a Catholic tertiary institution, has opened its doors to students with this opportunity. One of the innovative pedagogical approaches to teaching and learning implemented following the pandemic to meet the demands of students is hybrid learning. This proactive approach of the college made educational experiences more accessible for all, including those with disabilities.

Hybrid learning, which incorporates digital and online teaching resources, is becoming increasingly common in institutes of higher learning and is a productive learning style (Dietz, 2022). It has changed from face-to-face institutions that aim to give students freedom and greater individualization to online institutions that understand the need to support students (Watson & Murin, 2014). Additionally, it incorporates "an element of learner's control over time, pace, path, and place" that transforms conventional teacher-to-student training into a personalized method (Watson & Murin, 2014, p. 13). College students are more likely to be more independent and in charge of their learning process because they have more developed mental processes and independent behaviors. Online learners must be motivated and self-disciplined to learn effectively (Carter Jr. et al., 2020; Jansen et al., 2020). They must manage, access, and keep an eye on their learning to take ownership of their education.

What are the differences between online, blended, and hybrid learning? Online learning is a synchronous classroom setting where students use the internet to learn while interacting with the teacher and other students (Singh & Turman, 2019). According to Graham (2006), blended learning is the "combination of face-to-face instruction with computed-mediated instruction" (p.5) or an amalgamation of on-campus and online learning. Finally, hybrid learning occurs

when teachers simultaneously instruct their students online and in conventional classrooms (Umiyati, 2022). Although some graduate schools have adopted these learning methods, they are intimidating for instructors who are used to imparting knowledge face-to-face, particularly to students with special educational needs.

The main emphasis of this study was the use of hybrid learning for students with special education needs. Studies on the effects of blended learning on students with special needs have been conducted (Alvarado-Alcantar et al., 2018; Rivera, 2017; Zavaraki & Schneider, 2019; Zhang et al., 2020), but there are not enough studies on how it affects students with disabilities. To support flexibility and inclusive learning, researchers advise creating more hybrid learning environments (Gnaur et al., 2020; Hediansah & Surjono, 2020; Li et al., 2021). Hybrid learning also enables students to participate in class activities regardless of location, making education accessible to those with disabilities. Students with disabilities may have difficulties in their academics. However, with adequate support and understanding of their conditions, they can survive the challenges of various learning modalities, such as online and on-site environments. Hence, listening to learners' experiences is crucial to providing appropriate accommodations and fostering inclusion and equity for all learners.

Research Questions

This study aimed to identify the experiences of college students with special education needs. The following research questions were explicitly addressed in this study:

1. How do college students with special education needs perceive and experience hybrid learning environments?
2. How do college students with special education needs adapt to cope with the challenges of hybrid learning?
3. How do college students with special education needs achieve the desired learning outcomes in hybrid learning?

Literature Review

Addressing Special Education Needs in Hybrid Learning

Examining the learning experiences is essential for assessing and enhancing course designs for various learners because hybrid learning is now the most popular learning mode since the pandemic. The researcher used peer-reviewed journal publications and other academic sources to examine multiple learning environments and hybrid learning study participants. Studies involving students who needed special education services were conducted sporadically compared with those involving ordinary university students. According to Dizon and colleagues (2013), students with special education needs have levels of physical-motor, cognitive, language, psychosocial, and independence significantly different from those of average, regular, or neurotypical students of their age. They may have physical limitations from birth, such as being blind, deaf, or physically disabled, which sets them apart from the general

population (Dizon et al., 2013). They could be "delayed behaviors indicating a low or undeveloped intelligence, atypical language abilities, social-emotional and self-care skills, and maturation" (Gomez & Oael, 2013, p. 13).

For neurotypical students, hybrid learning may offer flexibility and convenience, enabling them to match their academic obligations with other personal commitments. However, students with special educational needs may have difficulties with hybrid learning. For instance, children with attention or memory issues may find online understanding challenging and need more assistance and accommodations to succeed. They might also need help managing their time and more structure and direction to keep on task.

Balancing the Convenience and Challenges of Hybrid Learning

Hybrid learning is a relatively recent concept gaining popularity in higher education institutions (Bøjer & Brøns, 2022). However, hybrid learning research has frequently been conducted with regular college students. For instance, a study by Little and Jones (2020) of 135 college students studying Accounting Principles found that hybrid and online classes produce a more flexible and exciting learning environment than entirely on-site education. This effort was assisted by Smith and Schreder's (2020) study on adult learners' attention in an online course. It showed that the average attentiveness was more remarkable when students and teachers signed on to Zoom simultaneously under the hybrid format.

In contrast, a study by Gutiérrez-Braojos and colleagues (2019) utilizing 36 female undergraduate students engaged in educational research using hybrid learning showed that collaboration without rivalry in face-to-face contexts promotes excellent learning quality. Students feel less pressure to meet their learning objectives when learning with their peers in a classroom. Additionally, their face-to-face contact when working on their assignments gives them confidence as they work with other students.

Integrating Technology and Assessing Emotional Impact

According to Liu, Spector, and Ikle (2018), integrating new technologies in hybrid synchronous learning can support collaborative and individualized learning, valuable pedagogies for college students. However, adopting new technology to support learning and instruction places a responsibility on designers and educators. Additionally, the complexity and speed of technological development necessitate that our students be better prepared, quick learners, and problem solvers. Furthermore, students with learning disabilities who require extra time to complete their assignments find rapid technological development a significant obstacle. In contrast to face-to-face classrooms, Daniels and Stupnisky (2012) identified distinct emotions felt in online learning contexts. Emotions produce varied results because the learning environment is vastly different. Although professors and some students are present in the same venue, the first-year college students' experience with virtual hybrid learning was overpowering with ambiguity, functionality, and place (Olt, 2018). As a result, they occasionally felt alienated from their online lectures.

Online students' feelings of isolation might be a severe problem. For instance, some students are compelled to participate in online course sessions due to their obligations to their families and jobs. Because they have little time for their studies, these students could experience isolation, fail to interact with the course material, and drop out (Cunningham, 2014). Additionally, Francescucci and Foster (2014) found that visual anonymity can occasionally make it simpler for online students to withdraw from class conversations. In these learning situations, the issue of exclusion is therefore evident.

Similar to the previous study, Butz and colleagues (2016) examined the influence of students' emotions, perceptions of control, value, and achievement in synchronous hybrid learning environments with 118 higher education students. Although using technology to participate in their classes is initially enjoyable for students, the result implies that the novelty of the delivery method wears off over time. To involve students in technology-mediated programs, instructional designers should continuously experiment with new technologies (Hrastinski, 2008).

Bower, Lee, and Dalgarno (2017) suggest offering remote students an embodied presence in face-to-face classes by considering the pedagogical, technological, and logistical issues unachievable with traditional styles to build a collaborative virtual, hybrid learning environment. To achieve learning objectives together, remote and in-person students should feel like they are interacting naturally in the same physical place.

With these learning experiences explored in these studies, the researcher hopes to contribute important insights into the journeys of students with special education needs through the dynamic terrain of hybrid learning because they are also at the forefront of the educational system and are not sufficiently represented in hybrid learning studies.

Methodology

Research Design

Semi-structured interviews were used in this descriptive qualitative study as part of a thematic-content analysis strategy, a technique for "identifying, analyzing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). For a fuller knowledge of the topic in question, this procedure emphasizes the experience (Holloway & Todres, 2003; McLeod, 2011), providing a thorough grasp of participants' hybrid learning.

Participants in the Study

Four college female and four male participants were chosen for this study using purposive sampling. They were identified as having physical impairments, sensory impairments, learning challenges, and behavioral, emotional, and social issues. They were enrolled in the hybrid learning program offered by the Catholic tertiary institution De La Salle-College of Saint Benilde across all its schools. All participants are also proficient users of learning management

systems, digital learning tools, and conference platforms such as Zoom or Google Meet because all classes were taught online for over two years. However, the participants have yet to take a hybrid learning course.

Table 1
Participants

Participants (Ps)	Gender	Age	Year Level	Diagnosed Condition
P1	M	23	Third Year	Severe Hearing Loss
P2	M	22	Second Year	Physical Impairment (Arthrogryposis)
P3	M	22	Second Year	Asperger Syndrome, Learning Disability
P4	M	21	First Year	Autism Spectrum Syndrome, High Anxiety & Depression
P5	F	22	Second Year	Attention Deficit Disorder, Anxiety, and Depression
P6	F	22	Second Year	Epilepsy, Anxiety, Depression & Obsessive Compulsive Disorder
P7	F	22	Second Year	Hearing Impairment with Cochlear Implant

Note: Participants' Demographics and Diagnosis

Research Instrument

A semi-structured interview was used to obtain the data. The research instrument is a 10-item questionnaire developed by the researcher with the guidance of special education professors about their perspectives, expectations, significant experiences, challenges or barriers, and vision for hybrid learning, administered through in-depth interviews.

Before distributing the questionnaires to the study participants, the researcher pilot-tested them with individuals who shared the same interests as those who would be participating in the study (Turner, 2010). This allowed the researcher to identify any weaknesses and limitations in the questions and make the required adjustments. To obtain adequate formulations, a small sample of interviewees completed the questionnaire (Bayat et al., 2019).

Data Gathering Procedure

The data-gathering procedure started after obtaining permission from the Center for Inclusive Education of De La Salle-College of Saint Benilde, especially from the Learning Support Case manager. This unit provides support and appropriate accommodation for students with special

learning needs. The Case Manager provided a possible list of the participants, and the researcher sent them an email with the consent form, inviting them to participate in the study. Upon receiving their signed consent form, the researcher emailed the participants several options for the in-depth interview dates through Zoom video conferencing. The interview for every participant lasted from 30 min to 1 h. Participants with hearing impairments requested a copy of the interview questions beforehand to understand the questions well and provide concrete answers. Their mothers also joined during the interview to assist their children. During the interview, the Zoom live transcript was also enabled to help the participants with hearing impairments understand the questions clearly. The researcher also provided adequate time for other participants to think before sharing their responses. When the participants had difficulty understanding some terms, the researcher used simpler words to help them respond to the questions. The interviews were recorded with the participant's consent, and the responses were transcribed. The transcription was verified by checking them against the data and seeking the participants' feedback to ensure the findings were accurate and represented their experiences.

Data Analysis

The data collected through in-depth interviews were transcribed, reviewed for accuracy and completeness, and coded and categorized. The researcher manually did this process to identify the themes and patterns of the data. The result of the thematic analysis was interpreted in light of the research questions to extract meaningful insights that allowed a more profound understanding of the participants' experiences and perspectives. Aside from the interview data, the researcher used the existing literature on hybrid learning environments to triangulate the data to increase the credibility of the findings and ensure a comprehensive understanding of the subject matter.

Findings and Discussion

The themes that emerged from the data include *efficient learning, safe feeling, a sense of belonging, and expectation setting*. The researcher used P1, P2, or P3 to specify the participants to maintain the participants' privacy. The schematic diagram for this study's findings is shown in Figure 1.

Figure 1

Schematic Diagram of Hybrid Learning Experiences of College Students with Special Education Needs
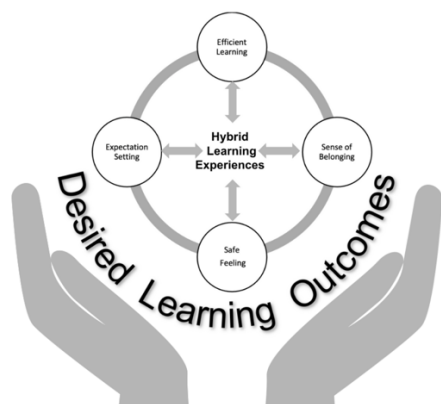
Note: Themes for College students with special education needs' hybrid learning experiences

Perception and Experiences of Hybrid Learning Environments

The participants perceive and experience hybrid learning as a modality with benefits and challenges. Efficient learning and safe feeling were the themes that surfaced for the benefits, sense of belonging, and expectation setting for the challenges. These themes encapsulated how the desired learning outcomes in hybrid learning environments will be achieved.

Efficient Learning

This theme highlights flexibility and independence, essential tools for the participants' practical learning. They experience flexibility in learning through different learning materials like audio, video, and text. For the participants, hybrid learning is fun, easy, and convenient. For instance, one participant (P2) with arthrogryposis, a descriptive term that describes an individual with congenital contractures of three or greater joints (Levine & Van Heest, 2021), said, "I can type whenever I want. I can submit my requirements on time and pass my assignment using Google Slides or video, which I love to do. It is hassle-free!" P1, who has profound hearing loss, was convinced that hybrid learning is exciting. He said, "I love it when I am with my classmates in the lab."

Moreover, P3, who has Asperger syndrome, conveyed, "The learning materials are accessible so long as I have an internet connection. I can use shortcuts to learn easily, so most of the time, learning is enjoyable." Therefore, utilizing technology in hybrid learning platforms, mobile apps, and other digital resources can make learning more advantageous for students with special learning needs.

Likewise, P4, who has Autism Spectrum Syndrome, expressed his affirmation of hybrid learning, especially in the online class. He said, "Since it is online, it is easier to finish tasks; I

do not need to submit hard copies, but digital essays work easily." Another participant (P7) with hearing impairment said, "I can study efficiently in front of my computer, in an air-conditioned room without traveling, even without my mother assisting me."

Aside from flexibility, participants also experience greater independence in hybrid and efficient learning. They take ownership of their learning process and are self-directed in their studies. As a result, they feel assured and in control of their learning. Like P6, who has epilepsy and experiences anxiety and depression, said,

> "I like it when teachers have prepared video recordings, and I can always visit the recording if I do not understand the discussion with the teacher. The recordings help me a lot because the teacher records the lesson alone, with no disturbances, so she is focused on her lecture, which also helps me focus on her discussion. With this, I learn better".

Allowing the students to make decisions and have choices in their learning can foster their autonomy and self-motivation. Hence, they take responsibility for their learning in the hybrid learning environment. In addition, the hybrid learning approach could offer an array of opportunities for the student's time and space constraints (Tyagi et al., 2021) and is effective with students with special education needs.

Safe Feeling

This theme emphasizes accommodations and accessibility, crucial for the participants' well-being and learning success, and are manifested when they feel comfortable and included in the learning environment. For example, one participant (P7) with hearing impairment was grateful for how her needs were accommodated. She said,

> "I am thankful for my case manager, who informs my professors about my condition. He always asks me about my needs or if I have difficulty in my courses. Because of his assistance, my teachers are informed about my condition, so whether online or face-to-face, I am not afraid in class."

Moreover, P7 was also pleased with how her school is true to its inclusion policy. "I am so much satisfied with the school accommodation policy. Before I enrolled here, I considered other schools, and I think this school is the best, so our money is not wasted because this school accommodates my needs." She concluded.

All participants feared commuting to school because of their disabilities. Instead, they believe their home is the safest place to engage in class or do schoolwork. For P2 with arthrogryposis, he said, "My wheelchair is still new; I am still practicing using it, and I have difficulty commuting because of my condition, so I am comfortable in my room to attend my classes." Another participant (P5) with attention deficit disorder said, "I am scarred socializing with others, so I do not talk." Finally, P6 has epilepsy, and she expressed, "The commute to school

is a significant factor in my learning because of my disability. Although I am taking my medicine, I still worry about my seizures or drop-downs. Also, the traffic is terrible!" Therefore, a home is a safe place for the participants to be productive because of their conditions. In addition, their parents, siblings, or helpers are there to assist them with their needs. Thus, with hybrid learning, online classes work well for them.

Regarding accessibility, the participants claimed they easily navigate the learning materials in hybrid learning through the learning management system, allowing them to manage their disabilities better. "BigSky is easy to maneuver," one participant said, referring to the school's official learning management system. Furthermore, disclosing their disability to their professors gave them a feeling of security that they would be given more time to access and accomplish their tasks and be more understanding of their needs.

Students with special education need to succeed academically and personally. They must feel safe and secure. Creating a welcoming learning environment for them might promote their general well-being. By working together in a secure environment, the hybrid learning approach aids students in learning (Trela & Rutschmann, 2022).

Adaptation and Coping Strategies in Hybrid Learning

Sense of Belonging

This theme focuses on the participant's social interaction, a challenge for the students with special needs to adapt and cope in the hybrid learning environment. For example, for P1 and P7 with profound hearing loss, engaging in class online and in person with professors and classmates wearing masks is very tough. "I have difficulty responding to our conversations with my classmates in the lab because I do not see their lips, "P1 asserted. Similarly, P7 explained,

> "When I am scheduled for face-to-face, it is difficult to understand my classmates and professors because they wear their masks. So, I ask my seatmate to explain what our professor has said. Sometimes, I feel too shy to disturb my classmates. It would be easier to understand the lessons if I see their lips."

Lip reading determines a person's words by watching lip movements without hearing the sound (Sooraj et al., 2020). It also recognizes speech information based on the change in lip movement, called visual speech recognition (Wang et al., 2022). In short, this method determines the speech by looking at the lips' movement. For deaf or people with hearing impairment, lip reading is crucial for understanding challenging conditions. However, when their community is not aware of the importance of lip reading, they feel isolated. This isolation may be caused by several factors, such as limited opportunities for interaction online or in person or difficulty navigating technology or accessing lesson materials. For example, P7 receives a brief comment from her groupmate while discussing their group project. She declared, "Sorry, but I cannot understand what you are saying!" P7 felt this was rude and

insensitive, and she never talked again in the group. P7 was born deaf and was diagnosed when she was 1½ years old. She had her cochlear implants when she was six years old, never learned signed language, but had speech therapy.

Using assistive technology has a great benefit for students who have profound hearing loss. Unfortunately, some teachers are not trained to use the tools to engage their students with special needs. P1, who has a profound hearing loss, thanked her theology professor, who used the Zoom live transcription to show closed captioning during the online session. With this, he never had problems engaging in class discussions and group activities. Thus, he wished that all teachers with hearing impairments use this tool to include all their students in the online class.

Developing relationships is also daunting for students with Autism Spectrum Syndrome (ASD) in the hybrid learning environment. For P4, diagnosed with ASD and has anxiety and depression, he finds online and in-person learning complicated because of difficulty communicating with peers and professors. He claimed, "It is tough to communicate in hybrid learning because others are at home and you are in the classroom. I do not want to work in a group. It creates division in class; there is no connection or bonding." One of the difficulties linked with Autism Spectrum Disorder relates to adaptation to new situations and anxious depressive symptoms because of excessive environmental requirements (Lugo-Marín et al., 2021). As a result, P4 asserted,

> "I do not have friends in class because of the rotation of classes from face-to-face to online. It is hard to make friends with others. Everything is so rigid. So, I do not have significant experience in hybrid learning; it is mostly frustrating! Moreover, we do not open our cameras, so it is difficult to put the face to the name and feel distant.''

Students with special learning needs may feel left out of the classroom and have problems building relationships with peers and professors. Therefore, creating opportunities for social interactions is imperative to mitigate this challenge and promote community, improving the student's educational experience and well-being.

Expectation Setting

This theme underscores communicating the learning outcomes to succeed in the hybrid learning modality. Despite the conditions of the participants, they have set their goals and expectations to ensure adequate academic performance. They believe clear and consistent communication with their teacher and case managers is crucial in working towards an inclusive learning environment. Unfortunately, there were instances when they felt frustrated and undermined because of their disabilities. As one participant (P4) with autism claimed,

> "I contacted my adviser because of immediate concern, but receiving her response took a long time, which triggered my anxiety. She is probably busy, but two days of no reply is too much for me. So I still email her hoping she will respond."

The unpredictable and intolerable behavior of others is one of the things that cause high anxiety levels in people with autism (Costley et al., 2021). It makes it challenging to achieve learning goals in a traditional setting. Therefore, it is ideal for all instructors to thoroughly understand their children's backgrounds to provide prompt, appropriate interventions if needed.

Another participant (P3) also shared his frustration. He commented, "There is no clear direction about using Photoshop in the laboratory. At first, they said it was part of the tuition fee, but there was no warning that it was not in the lab." Likewise, P5 asserted her disappointment with some of her teachers, saying,

> "I hope teachers' timing for their announcements or emails should not be beyond school hours. For example, sometimes teachers would announce that we have online classes at dawn, and we would be surprised that we have a meeting. Also, I hope teachers will use the official learning management system to announce their messages and not through Facebook or other unofficial platforms."

One participant (P7) feels comfortable sharing her disability with her classmates and teachers, saying, "I share my disability with my classmates during breakout session so as not to pity me but to understand me and also to all my professors." However, two participants (P3 & P6) expressed reservations about disclosing their conditions to their classmates and teachers because of their expectations. They pointed out, respectively:

> "I do not want them to know I have special needs. I want the school to maintain the anonymity of students with special learning needs because I do not want my classmates to feel that there might be some biases for giving me extra time for the test or asking for more time for deadlines" (P3).

> "I do not like to tell my situation because of inconvenience to the teacher, and it is not obvious that I have epilepsy. So, I only disclosed my condition to my case manager but not to teachers because of their expectations" (P6).

When students' expectations are unmet, the consequences can harm their educational experience. Unfulfilled expectations can lead to disappointment, frustration, and lack of motivation. When they do not feel that their teachers are meeting their needs, they may become disengaged and uninterested in the material being taught, leading to a decline in academic performance. This can harm the student's overall attitude toward school and learning. Therefore, teachers must take the time to understand and meet the expectations of their students to create a supportive and successful educational experience, especially for students with special education needs.

Achieving Desired Learning Outcomes in Hybrid Learning

In a hybrid learning environment, students with special needs may encounter several difficulties that could impair their learning outcomes. However, students will perform

better in their academic assignments with the assistance of their professors and peers. For an engaged and active learning experience, in-person and online learners need support (Gambo & Shakir, 2022). Participants of this study expressed instances where they received support from their teachers, who were aware of their conditions, which they disclosed at the start of their classes. "My teachers fully accommodated my needs because, from the start of classes, I had already told them about my condition, so they always asked me about my needs," P2 remarked. Like P2, who has a physical disability, P6, who has epilepsy, also shared the same satisfaction: "My professors accommodated my learning well because I disclosed my condition with them before classes started." Another participant liked her professors when they asked her, "Do you have any questions? Is there anything I can help you with?" P4 also shared her appreciation with her teachers, who exerted effort to reach out. "I have conference meetings with my professors to discuss my needs and grades," he said. By disclosing their diagnosed condition with their teachers, they felt secure and assured of additional support and resources to help them succeed.

Accessibility could be a problem in any hybrid learning course. However, participants in this study were okay with using their smartphones to access the course contents. With the effectiveness and efficiency of their learning management system, they effectively controlled their learning tasks. A participant who has severe hearing loss made the following observation:

> "I have no problem with the learning materials, for they are accessible. Also, the LMS is okay, and the video conferencing tool is. I like the video recordings of my teachers because I can always review the lesson if I do not understand the class discussion." (P7)

For students with disabilities to achieve the required learning outcomes, it is crucial to consider their learning requirements. The student and teacher should establish a positive rapport through ongoing communication and cooperation to define how the learner might provide proof of competency. Additionally, individualized learning might aid the learner in better understanding the course instructors' expectations. In general, implementing individualized instruction has a beneficial and constructive impact on student's motivation and learning success (Rahimi et al., 2021). As one of the participants (P4) said, "I appreciate my teachers when they ask me about my needs in class, especially when I am in an online class." Similarly, P5 feels valued when her professor, during in-person classes, provides positive feedback on her work: "I like it when my professor appreciates my work and allows me to work independently."

The role of teachers and peers in facilitating the learning process is essential for students' well-being. One participant confirmed, "The most significant experience in my hybrid class is meeting friendly teachers. I also meet lovely classmates during face-to-face classes." The participants also liked their group activities during face-to-face and breakout sessions when they were online. "I enjoy breakout sessions for our activities and projects because I get to talk to my classmates," P7 said. Similarly, P1 and P6 shared their satisfaction with conversing with their peers during group tasks.

Their teachers' and peers' strategies and support helped the students with special education needs achieve their desired learning outcomes. Furthermore, the collaboration and understanding between teachers, peers, and students with special learning needs break down barriers and foster a culture of inclusion. This way, the support provided can be instrumental in achieving the desired learning outcomes in a hybrid learning environment.

Conclusion

This study on hybrid learning experiences of college students with special education needs highlighted the importance of recognizing their unique needs for better environments and learning outcomes. Participants experienced a safe feeling and efficient learning as benefits of hybrid learning, specifically at home, where they have greater flexibility in understanding and accessing course content and resources. In addition, they can submit their tasks and collaborate with their peers through access and familiarity with digital tools, elevating their learning experience from the comfort of their homes. Finally, through hybrid learning, participants can reduce the cost of transportation and have better time management, allowing them to balance their academic and personal responsibilities.

However, college students with special education needs also experienced challenges in fostering a sense of belonging and clear expectation setting in hybrid learning. For example, the lack of in-person and limited opportunities for face-to-face communication can make it challenging for them to build meaningful connections with their peers and teachers, resulting in isolation and frustration. Further, the lack of clear structure in the student information guidelines, shifting expectations, and inconsistent routines can exacerbate their learning difficulties, making it more complicated for them to achieve the desired learning outcomes.

Nevertheless, despite the challenges they experienced in their hybrid learning, their teachers' and peers' support helped them achieve their learning outcomes. With the helping hands of teachers and learners, students with special education needs can overcome obstacles and reach their potential, proving that education success is within reach when we come together as a supportive community.

Implications for Educators

Recognizing learners with special education needs in a hybrid learning environment is crucial for fostering inclusivity and achieving the desired learning outcomes. Educators must prioritize a sense of belonging to counter the learner's isolation. Additionally, the intricacies of expectation setting should never be undermined because acknowledging students' voices will empower them to engage and excel, contributing to a more collaborative and nurturing learning environment. Clear and consistent guidelines can ease students' navigation in hybrid learning, enabling them to focus on their studies and achieve their academic goals confidently and efficiently.

Moreover, embracing a culture of acceptance of diversity in learning enriches all students' understanding of the learning experience, resulting in safe and efficient learning. In this way, educators become instrumental in shaping an environment where every learner can thrive academically and personally.

Recommendations for Future Research

To provide a more thorough knowledge of the difficulties and advantages of hybrid learning settings, the researcher recommends a future study that includes a more significant sample of college students with special education needs from various higher education institutions. Moreover, the best practices for helping students with special education needs can be identified and implemented by conducting additional research on successful teaching techniques, inclusive and supportive learning environments, and personalized support. Treating students with special education needs by teachers in higher education institutions is crucial for future research. Therefore, additional research will help provide invaluable information about students' struggles and perspectives and ensure a welcoming and equal learning experience for all students in hybrid learning environments. This will help develop the best training programs and ensure teachers have the skills and knowledge necessary to support students with disabilities effectively.

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Appendix A

Interview Questions:

1. Tell me about yourself, including your special education needs.
2. What do you understand about hybrid learning?
3. Describe your experiences in the hybrid learning environment.
4. What pedagogical design of hybrid learning is the most effective?
5. How accessible are learning materials, the learning management system, and the video conferencing tools used in class?
6. What are the barriers to hybrid learning that you have encountered?
7. What is your most significant experience with the hybrid learning modality?
8. How are your learning needs accommodated?
9. Are there policies in school about accommodation, accessibility, curriculum, or instruction that you want to improve? Identify.
10. What is your vision for hybrid learning?

Student Diversity and School Climate in the Mediterranean Zone: A Comparative Study

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Abstract

This study aimed to identify the extent student diversity and school climate vary within and across France, Italy, Spain, and Turkey, to investigate and compare the impact of student diversity on school climate in the selected Mediterranean countries. A quantitative research design was adopted by using the data of 41,789 teachers obtained from the dataset of the Teaching and Learning International Survey (TALIS) 2018. The research questions and hypotheses were formulated to investigate the extent of student diversity and school climate variations within and across the selected countries. Accordingly, the variability of general school climate, teacher-student relations, teaching experience in multicultural classrooms, teachers' self-efficacy in multicultural classrooms, the presence of students from various ethnic backgrounds, and diversity practices were tested in the schools of France, Italy, Spain, and Turkey in the research model. Statistical analyses, including chi-square and t-tests, ANOVA, and multiple regression analysis, were conducted to test the hypotheses and examine the relationships between student diversity and school climate. The findings revealed significant variations in student diversity and school climate within and across the participating countries, and evident relationships between student diversity and school climate were discovered and compared among the selected Mediterranean countries. This study contributes to the knowledge base of educational policymakers, administrators, practitioners, and teachers by guiding them in creating inclusive and supportive learning environments that promote positive student experiences and academic success and suggesting the need for policies and practices that support inclusive education and foster positive school climates in multicultural classrooms.

Keywords: learning environment, Mediterranean countries, school climate, student diversity, TALIS 2018

Student diversity has emerged as a key component of educational policies and systems around the world in today's more connected and diverse world. Diversity in terms of ethnicity and culture is more prevalent than ever in classrooms for both teachers and students, which makes the Western world "more culturally and ethnically diverse" (Dubbeld et al., 2019). A diverse student body that represents a range of cultural, linguistic, ethnic, socioeconomic, and ability backgrounds presents educational institutions with both opportunities and challenges.

According to Kaplan and Bista (2022), to embrace (or even to celebrate) diversity, a school community must go beyond mere tolerance and actively value diversity, which entails developing a mindset where diversity is viewed not as a weakness and a challenge but rather as a strength and something to be valued for teachers, students, and their families. Therefore, it is crucial to comprehend how student diversity affects school climate because it is a key factor in promoting a supportive and inclusive learning environment. A supportive and welcoming school environment with a diverse climate fosters student engagement, academic success, social and emotional well-being, and intergroup relations (Thapa et al., 2013; Ulbricht et al., 2022).

There are many facets to the relationship between student diversity and school climate. The variety of perspectives, experiences, and skills that students bring to the classroom enhances the learning environment. Students feel valued, respected, and included when diversity is embraced and appreciated in the classroom (Iglesias-Diaz & Romero-Perez, 2021). The engagement of students and collaboration among them are increased by a supportive learning environment provided through a positive school climate, which also lessens incidents of victimization among students of different ethnic backgrounds (Caravita et al., 2020; Konold et al., 2017).

Despite the widely acknowledged value of student diversity and school climate, the precise relationship between these elements has been changing as the world has faced some unprecedented impacts of transformation resulting from political, technological, sociocultural, and socioeconomic reasons. In the context of the countries in the Mediterranean region selected for this research; namely, France, Italy, Spain, and Turkey, there is a research gap providing a comparison of student diversity and school climate between these countries clarifying how student diversity varies within and between these nations and how it affects the school environment. To address this gap, this study contributes to the literature by determining the variability of student diversity and school climate within and among these countries, as well as investigating and contrasting the effect of student diversity on school climate.

Therefore, this study aimed to identify the extent student diversity and school climate vary within and across France, Italy, Spain, and Turkey, to investigate and compare the impact of student diversity on school climate in these selected Mediterranean countries. The examination of these connections would advance knowledge of how student diversity and school climate interact in the Mediterranean region and offer insightful information to educational policymakers, administrators, practitioners, and teachers.

Literature Review

Student Diversity

Diversity in education can be described as a difference or "unlikeness" between particular people or social groups (Pollock & Briscoe, 2020). It is multifaceted, may relate to tangible aspects or intangible ones, such as cultural practices, and is rational in light of the boundaries established by various social groups (Cerna et al., 2021). Student diversity is the inclusion of students from a range of socioeconomic, racial, linguistic, cultural, and ability backgrounds in "a learning environment in which curriculum, pedagogy, and outreach are all consistent with a broadly conceptualized multicultural philosophy" (Nieto & Bode, 2018, p. 39). It comprises a variety of unique traits, stories, and identities contributing to the diverse content of the student body.

Student diversity is critical to creating a dynamic and inviting learning environment for all students. There are many significant benefits to having diverse student populations in schools. It promotes intercultural understanding and respect among students in the first place and fosters a rich exchange of cultures (Davis et al., 2022). Students who are exposed to various viewpoints, cultures, and languages grow in their understanding of the world and become more prepared to live and work in diverse societies. Additionally, diverse classrooms can improve students' critical thinking, creativity, problem-solving, and academic performance (Dawes et al., 2020; Rasheed et al., 2020). Therefore, it is crucial to foster an environment in schools that values and respects diversity, which can be accomplished by incorporating multicultural curricula, attracting and retaining diverse educators, and offering culturally sensitive teaching methods.

School Climate

School climate is defined as the social, emotional, and physical environment of a school that influences the overall learning and well-being of students, staff, and the school community (Thapa et al., 2013; Voight & Nation, 2016). It represents the norms, values, and beliefs that shape the school community as experienced by students, parents, and school personnel (Cohen et al., 2009). It includes elements such as the quality of interactions between students and staff, the degree of safety and inclusivity, the existence of supportive policies and practices, and the general sense of engagement and belonging among the school community.

School climate, an essential element of the learning environment, has been connected to both positive and negative student outcomes. Supportive relationships, inclusive behaviours, and a feeling of belonging are typical indicators of a positive school climate. Therefore, students who experience an optimal educational environment tend to perform better academically (Wang & Degol, 2016), demonstrate enhanced social-emotional well-being (Aldridge et al., 2016) and improved mental health outcomes (Lewno-Dumdie et al., 2020; Wang & Degol, 2016). However, an unsupportive school environment can have negative effects on students, including higher levels of stress, anxiety, and depressive symptoms (Holt et al., 2016; Konishi et al.,

2010); lower academic motivation, decreased school attendance, and higher dropout rates (Thapa et al., 2013; Wang & Degol, 2016). It is important to develop and promote supportive learning environments that contribute to the success and well-being of all students to lessen the effects of a negative school climate on student outcomes.

Relationship Between Student Diversity and School Climate

Student diversity has a significant impact on the overall school climate by shaping student experiences socially, emotionally, and academically. In diverse schools, the interactions between students from different backgrounds can contribute to a more inclusive and tolerant school climate, fostering positive attitudes toward diversity, reducing prejudice, and enhancing intercultural understanding (Cerna et al., 2021; Cohen & Lotan, 2014; Schwarzenthal et al., 2020). Diverse student populations enable the creation of rich and active learning environments that value diversity and promote the growth of key abilities for navigating an environment that is becoming progressively diverse. Schools can create an inviting and encouraging educational setting for all students that supports both their overall well-being and academic success by embracing and valuing student diversity.

Numerous studies have examined the relationship between student diversity and school climate, highlighting the importance of fostering inclusive and positive environments for diverse student populations. Gromova et al. (2021) emphasized the importance of an accepting school environment for elementary school students who are immigrants to Russia. According to Dubbeld et al. (2019), it was reported that teachers' multicultural attitudes and their opinions of the school's policies and culture were linked to burnout by highlighting the importance of a supportive school environment for the well-being of students from different backgrounds. Similarly, Shirazi (2018) underlined the significance of school climate in fostering socio-political inclusion and a sense of belonging for diverse student populations. Additionally, Iglesias-Diaz and Romero-Perez (2021) conducted a systematic review that demonstrated the beneficial effects of inclusive classrooms on adolescent well-being by emphasizing the importance of a supportive school climate in meeting students' diverse social and emotional needs. Thus, it is important to develop welcoming environments at schools that value diversity among students and foster positive social interactions. Schools can give all students, regardless of background or identity, a sense of belonging, safety, and well-being by developing an environment that values diversity. These results highlight the significance of taking student diversity into account as a key element in determining the school climate and the demand for inclusive education policies and practices that cater to the particular needs of diverse student populations.

Methodology

Research Design

A quantitative research model was adopted in the study to identify the extent student diversity and school climate vary within and across France, Italy, Spain, and Turkey, to investigate and

compare the impact of student diversity on school climate in the selected Mediterranean countries. The research questions (RQs) were constructed below in line with the quantitative methodology:

RQ1. To what extent does student diversity vary within and across participating countries?
RQ2. To what extent does school climate vary within and across participating countries?
RQ3. What relationships are evident between student diversity and school climate in schools in selected Mediterranean countries?

Based on these RQs, the following hypotheses were formulated to quantitatively test various aspects of student diversity and school climate in the Mediterranean zone in the study:

H_1: The general school climate varies across countries.
H_2: Teacher-student relationships vary across countries.
H_3: Teaching experience in multicultural classrooms varies across countries.
    $H_{3.1}$: The general school climate in countries differs based on teaching experience in multicultural classrooms.
    $H_{3.2}$: Teacher-student relationships in countries differ based on teaching experience in multicultural classrooms.
H_4: The self-efficacy of teachers teaching multicultural classrooms varies across countries.
H_5: The presence of students from multiple ethnic backgrounds in the school varies across countries.
    $H_{5.1}$: The general school climate in countries differs based on the presence of students from multiple ethnic backgrounds in the school.
    $H_{5.2}$: Teacher-student relationships in countries differ based on the presence of students from multiple ethnic backgrounds in the school.
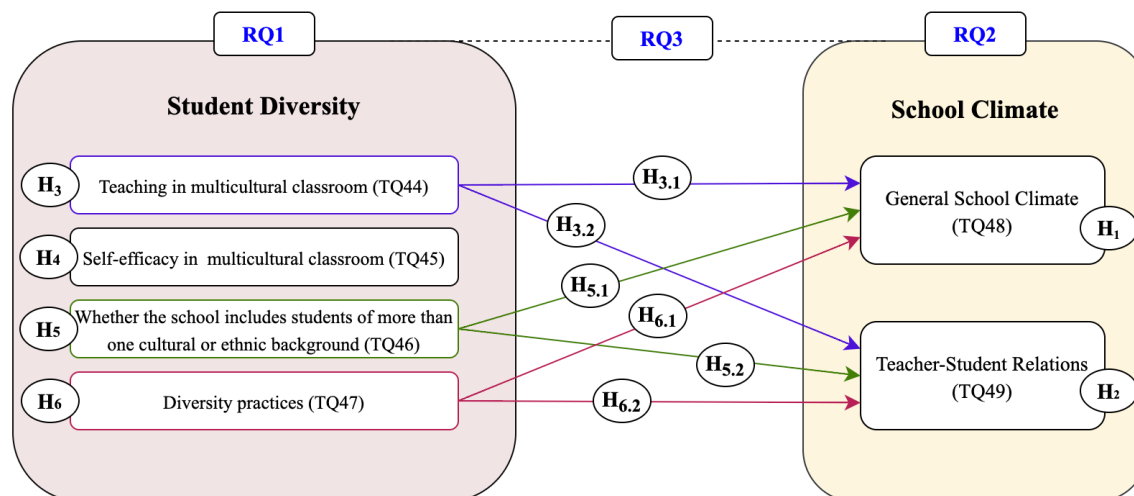H_6: Diversity practices vary across countries.
    $H_{6.1}$: Diversity practices have a positive impact on the general school climate.
    $H_{6.2}$: Diversity practices have a positive impact on teacher-student relationships.

Regarding the RQs and the hypotheses developed above, the research model of the study is illustrated in Figure 1.

Figure 1
The Research Design

As depicted in Figure 1, the primary objectives of this study were to understand and compare the differences in student diversity (RQ1), school climate (RQ2), and diversity in schools in the Mediterranean region (RQ3). Accordingly, the variability of general school climate (H_1), teacher-student relations (H_2), teaching experience in multicultural classrooms (H_3: $H_{3.1}$, $H_{3.2}$), teachers' self-efficacy in multicultural classrooms (H_4), the presence of students from various ethnic backgrounds (H_5: $H_{5.1}$, $H_{5.2}$), and diversity practices (H_6: $H_{6.1}$, $H_{6.2}$) were tested in the schools of France, Italy, Spain, and Turkey in the research model.

Participating Countries

The sample of the study was determined from the internationally collected data of the Teaching and Learning International Survey (TALIS) 2018 obtained from the OECD TALIS 2018 database (OECD, 2018a). The main goal of the TALIS is to offer reliable international indicators and analysis on teachers and teaching that is relevant to policymaking to assist nations and economies in reviewing and developing legislation that can foster beneficial conditions for both teaching and learning (Price & Carstens, 2020) over certain themes including diversity and school climate (Ainley & Carstens, 2018). Based on the availability and compatibility of the data, the participating countries were selected as France (FRA), Italy (ITA), Spain (SPA), and Turkey (TUR) located on the southern European coast representing the Mediterranean region. According to the World Bank (2021), the world's economies were classified into four groups of low, lower-middle, upper-middle, and high-income countries. Accordingly, France, Italy, and Spain were determined as high-income economies ($13,205 or more) whereas Turkey was labelled as an upper-middle-income economy ($4,256 to $13,205) in the Mediterranean zone. Other than geographical and economic backgrounds, these countries show similarities in rich cultural heritage, migration flows they experience, the influence of multiculturalism, educational policies, focus on inclusive education, and efforts for intercultural understanding.

After the identification and extraction of the data belonging to France, Italy, Spain, and Turkey, the sample of the study comprised 41,789 teachers as listed in Table 1.

Table 1
Demographics of the Participating Countries

Country	Gender	n	%
France	Female	3,198	72.1%
	Male	1,237	27.9%
	Total	*4,435*	*10.6*
Italy	Female	2,809	77.8%
	Male	803	22.2%
	Total	*3,612*	*8.6*
Spain	Female	10,161	69.3%
	Male	4,492	30.7%
	Total	*14,653*	*35.1*
Turkey	Female	10,017	52.5%
	Male	9,072	47.5%
	Total	*19,089*	*45.7*
TOTAL		**41,789**	**100.0**

As presented in Table 1, of 41,789 teachers in the study sample, 4,435 participants were from France (10.6%), 3,612 from Italy (8.6%), 14,653 from Spain (35.1%), and 19,089 from Turkey (45.7%). Regarding the distribution of teachers by gender, the teachers surveyed in France comprised 3,198 female teachers, corresponding to 72.1% of the entire teacher population in the country sample, and 1,237 male participants, roughly 27.9% of the total. Out of a total of 3,612 teachers in Italy, 2,809 participants, making up about 77.8% of the teacher sample in the country were female while the number was 803 for male teachers, accounting for approximately 22.2% of the total. In Spain, female participants totalled 10,161, corresponding to 69.3% of the total teacher sample in the country; on the other hand, male teachers numbered 4,492, representing around 30.7% of the total. Finally, the study sample from Turkey constituted a majority with 10,017 female participants, accounting for approximately 52.5% of the total teacher sample in the country; in contrast, male teachers numbered 9,072 making up approximately 47.5% of the total.

Research Instrument

The teacher questionnaire of TALIS 2018 was used as the research instrument in the study (OECD, 2018b). The questions analysed in the study were selected from OECD (2019) as TQ44, TQ45, TQ46, TQ47, TQ48, and TQ49 in line with the RQs. TQ44 captured whether teachers taught in classrooms with students from different cultures, with options for "Yes/No" whereas TQ45$_{(A,B,C,D,E)}$ examined the extent to which teachers coped with challenges, adapted teaching, ensured collaboration among students from different backgrounds, raised awareness

for cultural differences, and reduced ethnic stereotyping in culturally diverse classrooms, with a range from "not at all" to "a lot". TQ46 assessed whether the school included students from more than one cultural or ethnic background, and TQ47$_{(A,B,C,D)}$ explored the implementation of diversity practices, offering options of "Yes/No". TQ48$_{(A,B,C,D,E,F,G,H)}$ evaluated aspects of school climate, including staff and parental participation, shared responsibility, collaborative culture, shared beliefs, consistent enforcement of rules, and encouragement of staff-led initiatives while TQ49$_{(A,B,C,D,E)}$ measured the agreement levels regarding teachers and students getting along well, teachers valuing student well-being, teacher interest in student opinions, provision of extra assistance, and teacher reliance on each other, with a 4-point Likert scale.

The results of the reliability analyses for TQ48 and TQ49 indicated that the Cronbach's Alpha value of the general school climate (TQ48) was calculated as 0.840 for FRA, 0.843 for ITA, 0.901 for SPA, and 0.941for TUR; in addition, regarding teacher-student relations (TQ49), it was detected as 0.812 for FRA, 0.811 for ITA, 0.839 for SPA, and 0.868 for TUR, which all validates the reliability of the research instrument.

Data Analysis

In the study, several statistical analyses were employed on SPSS for Windows 26.0 to explore different aspects of student diversity and school climate based on the views of teachers from different countries. Therefore, the data specifically determined to be used were extracted from the OECD TALIS 2018 database depending on the RQs and hypotheses developed in the study (OECD, 2018a). First, frequency analyses were conducted to establish the sample profile. Subsequently, to determine the reliability coefficients of the variables of TQ48 and TQ49, Cronbach's Alpha values were calculated for each participating country. Next, the chi-square test of independence to identify whether teaching in multicultural classrooms and countries randomly occurs together or whether there is an actual relationship in addition to independent samples t-test to identify differences between groups for the variables with two categories were performed to test H$_3$, H$_{3.1}$, H$_{3.2}$, H$_5$, H$_{5.1}$, H$_{5.2}$, and H$_6$. Regarding the variables with more than two groups, analysis of variance (ANOVA) was employed to detect group differences to test H$_1$, H$_2$, and H$_4$. Based on the results of the ANOVA, post hoc tests were conducted to determine which specific pairs of groups differed from each other (H$_1$, H$_2$, and H$_4$). Finally, multiple regression analysis was used to investigate the impact of diversity practices on the general school climate and teacher-student relationships to test H$_{6.1}$ and H$_{6.2}$.

Results

Student Diversity Within and Across Participating Countries

To investigate RQ1 about the variability of student diversity, H$_3$, H$_4$, H$_5$, and H$_6$ were tested at this phase. First, the chi-square test of independence was utilized to identify if there might be a relationship between teaching in multicultural classrooms and countries. Table 2 represents the proportion of respondents in each country who reported teaching in a classroom with

students from different cultures (TQ44) and the percentage of classrooms and schools in each country with a diverse cultural or ethnic student population (TQ46).

Table 2

Variability of Student Diversity and Teaching in Multicultural Classrooms by Country

Items	France		Italy		Spain		Turkey	
	Yes	No	Yes	No	Yes	No	Yes	No
Taught classroom with students from different cultures (**TQ44**)	63.8%	36.2%	70.2%	29.8%	81.6%	18.4%	45.7%	54.3%
$\chi2=4619.101$; p<.001								
School includes students of more than one cultural or ethnic background (**TQ46**)	71.3%	28.7%	85.7%	14.3%	89.9%	10.1%	48.6%	51.4%
$\chi2=7049.195$; p<.001								

As observed in Table 2, the stark differences in the percentages between countries indicated varying levels of exposure to multicultural classrooms among the teaching population. Spain and Italy had a relatively higher percentage of classrooms with such diversity while France and Turkey had a lower proportion (H_3: accepted). Regarding the percentage of classrooms and schools in each country that had a diverse cultural or ethnic student population (TQ46), France, Italy, Spain, and Turkey had different levels of cultural diversity in their educational settings, with Spain and Italy having the highest percentages of classrooms and schools with students from different cultures or ethnic backgrounds (H_5: accepted).

Subsequently, the variability of diversity practices (TQ47) was examined as part of RQ1 to test H_6. The results of the chi-square test of independence are presented in Table 3.

Table 3

Variability of Diversity Practices by Country

TQ47	France		Italy		Spain		Turkey	
	Yes	No	Yes	No	Yes	No	Yes	No
Encourage students' expression of diverse cultural identities	47.8%	52.2%	57.2%	42.8%	66.6%	33.4%	42.5%	57.5%
$\chi2=1347.998$; p<.001								
Organising multicultural events	27.7%	72.3%	33.2%	66.8%	48.1%	51.9%	27.5%	72.5%
$\chi2=1150.860$; p<.001								
Teaching students how to deal with ethnic and cultural discrimination	79.5%	20.5%	67.7%	32.3%	80.0%	20.0%	54.6%	45.4%
$\chi2=1796.629$; p<.001								
Adopting practices that integrate global themes via curriculum	65.8%	34.2%	76.2%	23.8%	76.8%	23.2%	52.0%	48.0%
$\chi2=1622.127$; p<.001								

As illustrated in Table 3, Spain had the highest percentage (66.60%) for encouraging students to express their diverse cultural identities, preceded by Italy (57.20%), France (47.80%), and Turkey (42.50%). As for organizing multicultural events, Spain also had the greatest proportion (48.10%), followed by Italy (33.20%), France (27.70%), and Turkey (27.50%). Concerning teaching students how to deal with ethnic and cultural discrimination, France had the highest percentage (79.50%), followed by Spain (80.00%), Italy (67.70%), and Turkey (54.60%). In terms of adopting practices that incorporate global themes into the curriculum, Spain had the highest percentage (76.80%), preceded by Italy (76.20%), France (65.80%), and Turkey (52.0%). Evidently, Spain tended to excel in encouraging cultural expression and organizing multicultural events whereas France stood out for addressing ethnic and cultural discrimination. Italy was notable for incorporating global themes into curricula. Turkey had comparatively lower percentages across all categories, suggesting a relatively lower emphasis on these diversity practices compared to the other countries listed (H_6: accepted).

Finally, ANOVA was conducted to determine the variability of teachers' self-efficacy in multicultural classrooms by country to test H_4. The ANOVA test is a statistical tool used to determine whether there are any statistically significant differences between the means of three or more independent groups. The results of the analysis are demonstrated in Table 4.

Table 4

Variability of Teachers' Self-efficacy in Multicultural Classrooms by Country

Country	Cope with challenges of a multicultural classroom (TQ45A)	Adapt teaching to cultural diversity of students (TQ45B)	Ensure that students with w/out migration background work together (TQ45C)	Raise awareness for cultural differences amongst students (TQ45D)	Reduce ethnic stereotyping amongst students (TQ45E)
France	2.727 ± 0.598	2.704 ± 0.664	3.305 ± 0.588	2.970 ± 0.702	3.188 ± 0.638
Italy	2.838 ± 0.486	2.857 ± 0.497	2.971 ± 0.730	3.335 ± 0.534	3.335 ± 0.584
Spain	2.695 ± 0.650	2.692 ± 0.661	3.126 ± 0.636	3.070 ± 0.686	3.255 ± 0.638
Turkey	2.673 ± 0.514	2.647 ± 0.514	2.852 ± 0.612	2.899 ± 0.529	3.169 ± 0.508
F(p)	88.332 (0.000)	133.087 (0.000)	895.209 (0.000)	606.736 (0.000)	118.824 (0.000)
Difference	All	All except FRA and SPA	All	All	All

In Table 4, it was indicated that all 5 sub-dimensions that made up teacher self-efficacy varied according to countries ($p<0.05$ for TQ45A, TQ45B, TQ45C, TQ45D, and TQ45E). After conducting an ANOVA test, post hoc comparisons are used when ANOVA indicates that there are significant differences between group means. The purpose is to pinpoint exactly which groups differ from each other because ANOVA only explains that there is a significant difference among the groups but does not specify in which pairs it exists. Therefore, post hoc tests are performed to identify the specific pairs of groups with significant differences in their means and provide a more detailed understanding of the data. Therefore, Tukey post hoc

analysis was carried out to reveal the source of this difference for each sub-dimension. The results detected significant differences among the countries for all of the sub-dimensions of teachers' self-efficacy in multicultural classrooms (all p-values<.001). Post hoc comparisons proved that there were significant differences between all countries for the dimensions of "coping with challenges of a multicultural classroom", "adapting teaching to cultural diversity of students", "ensuring that students with/without migration background work together", "raising awareness for cultural differences among students", and "reducing ethnic stereotyping among students". Specifically, France, Italy, Spain, and Turkey showed statistically significant differences in all of the five sub-dimensions compared to each other. However, France and Spain did not differ significantly from each other and were distinct from the other countries in all sub-dimensions except the adaptation of teaching to the cultural diversity of students. Teachers from Italy had the highest self-efficacy in "coping with challenges of a multicultural classroom", while teachers from France were the best among other countries in "ensuring that students with/without migration background work together". Italian teachers were good at raising awareness for cultural differences amongst students" and "reducing ethnic stereotyping amongst students" (H$_4$: accepted).

School Climate Within and Across Participating Countries

ANOVA was conducted to examine the variability of general school climate (H$_1$) and teacher-student relations (H$_2$) across different countries to address RQ2. For the general school climate, a significant difference was found among the countries ($F_{(3.41785)}$=54.822; p<.001). Therefore, post hoc comparisons proved that there were significant differences between all countries as demonstrated in Table 5.

Table 5
Variability of School Climate by Country

Items	Country	n	X̄	SD	F	p
General School Climate **(TQ48)**	France	4,435	2.801	0.464	54.822	0.000
	Italy	3,612	2.815	0.427		<u>Difference</u>
	Spain	14,653	2.907	0.534		All except
	Turkey	19,089	2.879	0.626		FRA and ITA
	Total	*41,789*	*2.875*	*0.565*		
Teacher-Student Relations **(TQ49)**	France	4,435	3.266	0.441	481.272	0.000
	Italy	3,612	3.157	0.430		<u>Difference</u>
	Spain	14,653	3.311	0.461		All
	Turkey	19,089	3.118	0.516		
	Total	*41,789*	*3.205*	*0.491*		

Accordingly, France had the lowest mean score (X̄=2.801) whereas Spain had the highest mean score (X̄ = 2.907) for the general school climate. All the countries except France and Italy differed significantly from each other in terms of the general school climate (H$_1$: accepted).

Regarding teacher-student relations, a significant difference was also observed among the countries ($F_{(3.41785)}$=481.272; $p<.001$). Post hoc comparisons indicated that there were significant differences between all the countries. Turkey had the lowest mean score ($\bar{X}$=3.118) while Spain had the highest mean score ($\bar{X}$=3.311) for teacher-student relations. All the countries differed significantly from each other in terms of teacher-student relations (H_2: accepted).

Evident Relationships Between Student Diversity and School Climate by Country

To address RQ3, the variability of student diversity according to school climate was investigated through the independent sample t-test ($H_{3.1}$, $H_{3.2}$, $H_{5.1}$, and $H_{5.2}$), and the effect of student diversity on school climate was examined via multiple regression analysis ($H_{6.1}$ and $H_{6.2}$). The independent samples t-test is a statistical method used to compare the means of two independent groups to determine if there is a significant difference between them whereas multiple regression analysis explores the relationship between one dependent variable and multiple independent variables to understand how each independent variable contributes to changes in the dependent variable. First, the independent sample t-test was used to determine whether the general school climate differs according to teaching experience in multicultural classrooms, and the results are presented in Table 6.

Table 6
Variability of General School Climate According to Teaching in Multicultural Classrooms

TQ48 / Country	Teaching Experience in Multicultural Classrooms	n	$\bar{X} \pm$ SD	t (p)
France	Yes	2,682	2.805 ± 0.486	1.414 (0.157)
	No	1,523	2.784 ± 0.457	
Italy	Yes	2,472	2.822 ± 0.426	-1.298 (0.194)
	No	1,050	2.792 ± 0.445	
Spain	Yes	11,819	2.917 ± 0.537	1.888 (0.059)
	No	2,663	2.861 ± 0.533	
Turkey	Yes	8,618	2.863 ± 0.638	1.028 (0.304)
	No	10,253	2.892 ± 0.620	

As observed in Table 6, school climate did not vary according to teaching experience in multicultural classes ($p>0.05$) ($H_{3.1}$: rejected). Next, the independent sample t-test was used to determine whether the teacher-student relationship differs according to teaching in multicultural classrooms, and the results are demonstrated in Table 7.

Table 7

Variability of Teacher-student Relations According to Teaching in Multicultural Classrooms

TQ49 / Country	Teaching Experience in Multicultural Classrooms	n	$\bar{X} \pm SD$	t (p)
France	Yes	2,682	3.263 ± 0.451	4.916 (0.000)
	No	1,523	3.282 ± 0.455	
Italy	Yes	2,472	3.161 ± 0.438	-3.538 (0.000)
	No	1,050	3.144 ± 0.429	
Spain	Yes	11,819	3.306 ± 0.465	-3.098 (0.002)
	No	2,663	3.341 ± 0.454	
Turkey	Yes	8,618	3.110 ± 0.527	-1.713 (0.087)
	No	10,253	3.123 ± 0.509	

As evident in Table 7, the teacher-student relationship in Turkey did not vary according to teaching experience in multicultural classrooms (p>0.05). On the other hand, the teacher-student relationship in Italy was more positive if the teacher was experienced in teaching in multicultural classrooms (p<0.05). Conversely, in France and Spain, the teacher-student relationship declined the variability of teaching experience in multicultural classrooms ($H_{3.2}$: partially accepted).

Moreover, the independent sample t-test was used to determine the variability of the general school climate according to whether there is more than one ethnic student in the school, and the results are listed in Table 8.

Table 8

Variability of General School Climate According to the Presence of More Than One Ethnicity in the School

TQ48 / Country	Presence of more than one ethnicity in the school	n	$\bar{X} \pm SD$	t (p)
France	Yes	2,988	2.801 ± 0.489	0.943 (0.346)
	No	1,203	2.787 ± 0.442	
Italy	Yes	3,022	2.814 ± 0.420	0.146 (0.884)
	No	504	2.811 ± 0.500	
Spain	Yes	13,013	2.916 ± 0.535	6.026 (0.000)
	No	1,464	2.827 ± 0.548	
Turkey	Yes	9,186	2.835 ± 0.636	-9.253 (0.000)
	No	9,710	2.920 ± 0.619	

In Table 8, it was detected that the general school climate in France and Italy did not vary depending on whether there were students from more than one ethnicity in the school (p>0.05). On the other hand, the presence of students from more than one ethnicity in Spain increased the general school climate whereas it decreased in Turkey ($H_{5.1}$: partially accepted). The

independent sample t-test was also used to determine the variability of the teacher-student relationship according to whether there are students from more than one ethnic origin in the school, and the results of the analysis are demonstrated in Table 9.

Table 9

Variability of Teacher-student Relationship According to the Presence of More Than One Ethnicity in the School

TQ49 / Country	Presence of more than one ethnicity in the school	n	$\bar{X} \pm SD$	t (p)
France	Yes	2,988	3.266 ± 0.449	-0.850 (0.395)
	No	1,203	3.279 ± 0.462	
Italy	Yes	3,022	3.152 ± 0.432	-1.360 (0.174)
	No	504	3.180 ± 0.453	
Spain	Yes	13,013	3.313 ± 0.462	0.136 (0.892)
	No	1,464	3.311 ± 0.470	
Turkey	Yes	9,186	3.093 ± 0.518	-6.294 (0.000)
	No	9,710	3.140 ± 0.516	

As a result of the t-test analysis, the presence of students from more than one ethnicity in the school did not affect the teacher-student relationship in France, Italy, and Spain (p>.05); however, the teacher-student relationship decreased in Turkey if there were more than one ethnicity in the school ($H_{5.2}$: partially accepted).

Finally, multiple regression analysis was conducted separately for each country to determine the impact of cultural diversity practices on the general school climate, and the findings of the regression analysis are presented in Table 10.

Table 10

The Effect of Cultural Diversity Practices on General School Climate by Country*

Items	France			Italy			Spain			Turkey		
	β	t	p	β	t	p	β	t	p	β	t	p
(Constant)		37.143	0.000		35.065	0.000		86.454	0.000		70.352	0.000
TQ44	0.018	1.028	0.304	0.028	1.523	0.128	-0.008	-0.921	0.357	-0.021	-2.411	**0.016**
TQ45A	0.010	0.586	0.558	0.029	1.371	0.170	0.025	2.345	**0.019**	0.007	0.780	0.435
TQ45B	0.029	1.543	0.123	0.064	2.978	**0.003**	0.036	3.317	**0.001**	0.026	2.796	**0.005**
TQ45C	0.087	4.930	**0.000**	-0.011	-0.652	0.514	0.052	5.504	**0.000**	0.045	5.185	**0.000**
TQ45D	-0.010	-0.538	0.591	0.056	2.721	**0.007**	0.012	1.185	0.236	0.001	0.083	0.933
TQ45E	0.047	2.606	**0.009**	-0.001	-0.070	0.944	0.032	3.110	**0.002**	0.018	2.031	**0.042**
TQ46	-0.006	-0.354	0.723	0.013	0.757	0.449	-0.010	-1.209	0.227	0.012	1.351	0.177
TQ47A	-0.081	-4.899	**0.000**	-0.121	-6.656	**0.000**	-0.113	-12.552	**0.000**	-0.062	-6.450	**0.000**
TQ47B	-0.058	-3.528	**0.000**	-0.044	-2.460	**0.014**	-0.063	-7.205	**0.000**	0.001	0.060	0.952
TQ47C	-0.072	-4.566	**0.000**	-0.101	-5.677	**0.000**	-0.114	-12.821	**0.000**	-0.114	-12.543	**0.000**
TQ47D	-0.065	-4.190	**0.000**	-0.112	-6.331	**0.000**	-0.148	-16.825	**0.000**	-0.106	-11.616	**0.000**
F	22.379			33.000			199.668			124.028		
p	.000			.000			.000			.000		
Adj. R^2	0.050			0.089			0.130			0.066		
DW	1.597			1.881			1.738			1.759		

*The increasing codes assigned to TQ44 and TQ47 within the original dataset are indicative of a progressively unfavourable situation. Consequently, a negative coefficient signifies a contrary positive impact.

According to the results, cultural diversity practices positively influenced the general school climate in all the countries. The models established for each country were statistically significant (p<0.05). In France, "ensuring that students with and without a migrant background work together" (β=.087; p<.01), "reducing ethnic stereotyping amongst students" (β=.087; p<.01), and all diversity practices (TQ47) had a positive impact on the school climate. In Italy, "adapting teaching to the cultural diversity of students" (β=.064; p<.01), "raising awareness for cultural differences amongst students" (β=.056, p<.01), and all diversity practices (TQ47) positively influenced the school climate. In Spain, "ensuring that students with/without a migrant background work together" (β=.025; p<.01), "adapting teaching to the cultural diversity of students" (β=.036; p<.01), "ensuring that students with/without a migrant background work together" (β=.052; p<.01), "reducing ethnic stereotyping amongst students" (β=.064, p<.01), and all diversity practices (TQ47) positively affected the school climate. Finally, in Turkey, "teaching in a classroom with students from different cultures", "adapting teaching to the cultural diversity of students", "ensuring that students with/without a migrant background work together", and "reducing ethnic stereotyping amongst students" positively impacted the school climate. Additionally, except from "organizing multicultural events", other diversity practices also had a positive impact on the school climate (H$_{6.1}$: accepted).

To test H$_{6.2}$, multiple regression analyses were conducted separately for each country to examine the impact of cultural diversity practices on teacher-student relations. The findings of the regression analysis are presented in Table 11.

Table 11

The Effect of Cultural Diversity Practices on Teacher-student Relations by Country*

Items	France			Italy			Spain			Turkey		
	β	t	p	β	t	p	β	t	p	β	t	p
(Constant)		42.535	**0.000**		34.684	**0.000**		91.107	**0.000**		78.973	**0.000**
TQ44	0.056	3.088	**0.002**	0.039	2.065	**0.039**	0.051	5.958	**0.000**	-0.033	-3.752	**0.000**
TQ45A	-0.010	-0.586	0.558	0.030	1.403	0.161	0.028	2.544	**0.011**	0.032	3.625	**0.000**
TQ45B	0.015	0.774	0.439	0.022	0.986	0.324	0.024	2.205	**0.027**	0.010	1.062	0.288
TQ45C	0.097	5.458	**0.000**	-0.001	-0.031	0.975	0.093	9.544	**0.000**	0.044	5.045	**0.000**
TQ45D	-0.009	-0.481	0.631	0.096	4.584	**0.000**	0.034	3.343	**0.001**	0.021	2.203	**0.028**
TQ45E	0.043	2.317	**0.021**	0.016	0.865	0.387	0.066	6.187	**0.000**	0.052	5.810	**0.000**
TQ46	0.009	0.556	0.578	0.035	2.091	**0.037**	0.008	0.963	0.336	0.014	1.612	0.107
TQ47A	-0.029	-1.730	0.084	-0.064	-3.458	**0.001**	-0.058	-6.318	**0.000**	-0.035	-3.599	**0.000**
TQ47B	-0.047	-2.841	**0.005**	-0.027	-1.512	0.131	-0.024	-2.664	**0.008**	0.002	0.161	0.872
TQ47C	-0.061	-3.858	**0.000**	-0.080	-4.427	**0.000**	-0.080	-8.710	**0.000**	-0.086	-9.346	**0.000**
TQ47D	-0.047	-3.005	**0.003**	-0.080	-4.441	**0.000**	-0.099	-10.959	**0.000**	-0.064	-6.936	**0.000**
F	12.309			18.152			123.343			78.619		
p	.000^b			.000^c			.000^d			.000^e		
r2	0.027			0.050			0.084			0.043		
DW	1.736			1.811			1.817			1.855		

*The increasing codes assigned to TQ44 and TQ47 within the original dataset are indicative of a progressively unfavourable situation. Consequently, a negative coefficient signifies a contrary positive impact.

The model established for France was statistically significant (p<.001) accounting for 2.7% of the variance in teacher-student relations. In France, the results indicated that among the individual predictor variables, "ensuring that students with/without a migrant background work together" (β=.087; p<.01) and "reducing ethnic stereotyping amongst students" (β=.047; p<.01) demonstrated a significant positive relationship with teacher-student relations. Conversely, "teaching in a classroom with students from different cultures" (β=.018; p>.05), "coping with the challenges of a multicultural classroom" (β=.010; p>.05), "adapting teaching to the cultural diversity of students" (β=.029; p>.05), and "raising awareness for cultural differences amongst students" (β=-0.010; p>.05) did not exhibit significant associations. Regarding the cultural diversity practices, positive associations were observed for "supporting activities or organizations that encourage students' expression of diverse ethnic and cultural identities" (β=-0.081; p<.01), "organizing multicultural events" (β=-0.058; p<.01), "teaching students how to deal with ethnic and cultural discrimination" (β=-0.072; p<.01), and "adopting teaching and learning practices that integrate global issues throughout the curriculum" (β=-0.065; p<.01).

The model employed for Italy was statistically significant (p<.001) accounting for 5.0% of the variance in teacher-student relations. In Italy, "teaching in a classroom with students from different cultures" (β=.039; p<.05), "whether the school includes students of more than one cultural or ethnic background" (β=.035; p<.05), and "raising awareness for cultural differences amongst students" (β=.096; p<.05) demonstrated a significant positive relationship with teacher-student relations. On the other hand, "coping with challenges of a multicultural classroom" (β=.030; p>.05), "adapting teaching to the cultural diversity of students" (β=.022; p>.05), "ensuring that students with/without a migrant background work together" (β=-.001; p>.05), and "reducing ethnic stereotyping amongst students" (β=.016; p>.05) did not exhibit significant associations. Regarding cultural diversity practices, positive associations were observed for "supporting activities or organizations that encourage students' expression of diverse ethnic and cultural identities" (β=-.064; p<001), "teaching students how to deal with ethnic and cultural discrimination" (β=-.080; p<.001), and "adopting teaching and learning practices that integrate global issues throughout the curriculum" (β=-.080; p<.001).

The model developed for Spain was statistically significant (p<.001) accounting for 8.4% of the variance in teacher-student relations. In Spain, only "whether the school includes students of more than one cultural or ethnic background" did not have a significant impact on teacher-student relations (β=.008; p>.05). All the other variables, which are "teaching in a classroom with students from different cultures", "self-efficacy in multicultural classrooms" ($TQ45_{A,B,C,D,E}$), and diversity practices ($TQ47_{A,B,C,D}$) had a positive impact on teacher-student relations in Spain.

The final model established for Turkey was statistically significant (p<.001) accounting for 4.3% of the variance in teacher-student relations. In Turkey, "teaching in a classroom with students from different cultures" (β=-.033; p<.05) positively influenced teacher-student relations. "Coping with the challenges of a multicultural classroom" (β=0.032; p<.001), "ensuring that students with/without a migrant background work together" (β=0.044; p<.001), "raising awareness for cultural differences amongst students" (β=0.021; p<.05), and "reducing ethnic stereotyping amongst students" (β=0.052; p<.001) also exhibited significant positive associations. Regarding cultural diversity practices, positive associations were observed for "supporting activities or organizations that encourage students' expression of diverse ethnic and cultural identities" (β=-0.035; p<.001), "teaching students how to deal with ethnic and cultural discrimination" (β=-0.086; p<.001), and "adopting teaching and learning practices that integrate global issues throughout the curriculum" (β=-0.064; p<.001) ($H_{6.2}$: accepted).

To sum up, based on the research design of this study, the differences in student diversity (RQ1), school climate (RQ2), and diversity in schools in the Mediterranean region (RQ3) were investigated through the variability of general school climate (H_1), teacher-student relations (H_2), teaching experience in multicultural classrooms (H_3: $H_{3.1}$, $H_{3.2}$), teachers' self-efficacy in multicultural classrooms (H_4), the presence of students from various ethnic backgrounds (H_5: $H_{5.1}$, $H_{5.2}$), and diversity practices (H_6: $H_{6.1}$, $H_{6.2}$) in the schools of France, Italy, Spain, and Turkey. The summarized results are presented in Table 12.

Table 12

Overall Results of Hypothesis Testing

Hypotheses	p-value	Decision
H_1: The general school climate varies across countries.	All countries<0.001	Accepted
H_2: Teacher-student relationships vary across countries.	All countries<0.001	Accepted
H_3: Teaching experience in multicultural classrooms varies across countries.	All countries <0.01	Accepted
$H_{3.1}$: The general school climate in countries differs based on teaching experience in multicultural classrooms.	All countries>0.05	Rejected
$H_{3.2}$: Teacher-student relationships in countries differ based on teaching experience in multicultural classrooms.	Turkey>0.05 Other countries<0.01	Rejected for Turkey Accepted for France, Italy, and Spain
H_4: The self-efficacy of teachers teaching multicultural classrooms varies across countries.	All countries<0.001	Accepted
H_5: The presence of students from multiple ethnic backgrounds in the school varies across countries.	All countries<0.01	Accepted
$H_{5.1}$: The general school climate in countries differs based on the presence of students from multiple ethnic backgrounds in the school.	France>0.05 Italy>0.05 Spain<0.01 Turkey<0.01	Rejected for France and Italy Accepted for Turkey and Spain
$H_{5.2}$: Teacher-student relationships in countries differ based on the presence of students from multiple ethnic backgrounds in the school.	France>0.05 Italy>0.05 Spain >0.05 Turkey<0.01	Accepted only for Turkey Rejected for other countries
H_6: Diversity practices vary across countries.	All countries<0.01	Accepted
$H_{6.1}$: Diversity practices have a positive impact on the general school climate.	All countries<0.01	Accepted
$H_{6.2}$: Diversity practices have a positive impact on teacher-student relationships.	All countries <0.01	Accepted

Discussion

This study sought to determine the degree to which student diversity and school climate differ within and among France, Italy, Spain, and Turkey by examining and comparing the effects of student diversity on school climate in these selected Mediterranean nations. The results revealed several significant findings. Firstly, evident variations were detected in the general school climate, teacher-student relationships, teaching experience in multicultural classrooms, self-efficacy of teachers, and the presence of students from multiple ethnic backgrounds among the countries (H_1, H_2, H_3, H_4, and H_5). These findings align with prior research in the field (Dawes et al., 2020; Rasheed et al., 2020; Thapa et al., 2013; Voight & Nation, 2016). Spain and Italy had a higher proportion of classrooms with diverse cultural or ethnic student populations compared to France and Turkey (H_3 and H_5). Consistently, as stated by Patiño-Santos and Rubinstein (2012), "Spain shows a wide variety of communities", which can contribute to a rich and multicultural learning environment in Spanish schools by fostering interactions and exchanges among students from different backgrounds. Similarly, due to the

number of immigrant students in Italian schools resulting in more heterogeneous student populations, it was reported that teachers in Italy were in great need of professional development for teaching in multicultural settings (Forghani-Arani et al., 2019).

Furthermore, diversity practices differed among the countries, with Spain excelling in cultural expression and multicultural events, France addressing discrimination, Italy incorporating global themes, and Turkey showing a relatively lower emphasis on diversity practices (H_6). These findings align with previous research highlighting the importance of diversity practices in promoting inclusive and tolerant school environments (Akkari & Radhouane, 2022; Karacabey et al., 2019; Thapa et al., 2013; Voight & Nation, 2016).

Post hoc analyses revealed significant differences in coping with challenges of multicultural classrooms, adapting teaching to cultural diversity, raising awareness for cultural differences, and reducing ethnic stereotyping among students across the four countries. France and Spain were similar in most sub-dimensions, while Italy displayed high self-efficacy in coping with challenges, and France excelled in ensuring collaboration between students with/without migration backgrounds (H_4). Consistently, Romijn and colleagues (2020) detected that the variance of Italian teachers' self-efficacy related to diversity was a little higher compared to the other countries, which is consistent with the results of this study. Regarding intercultural education in France, Akkari and Radhouane (2022) highlighted the centralized system in France about "strategies dealing with cultural diversity in the school" and the creation of "integration classes" in France for students from different cultures to provide intercultural, linguistic, and social support.

The general school climate varied among countries, with France and Italy differing significantly from the others (H_1). As confirmed by Dawes and colleagues (2020) and Khairutdinova and fellows (2022), a positive school climate is significant for student well-being, academic achievement, and social-emotional development. It was also detected that teacher-student relationships also varied, with Turkey having the lowest mean score and Spain having the highest (H_2). Strong teacher-student relationships have been associated with positive student outcomes, including engagement, motivation, and academic success (Rasheed et al., 2020; Thapa et al., 2013). In Turkey, despite the paucity of research that specifically examines the learning environment from the perspective of diversity, a significant tendency was detected for inclusive education practices (Sarigoz, 2019). While the diversity of students in Turkish schools presents chances for cross-cultural interaction and tolerance, it can also create problems because of linguistic and cultural barriers. Turkey is working to promote inclusive practices and cultivate welcoming school environments (Karacabey et al., 2019). According to Basbay and Bektas (2009), teachers in Turkey need to be aware of students' values, possess the knowledge and abilities to integrate cultural differences, and update the classroom environment, instructional strategies, and learning and teaching methods to meet the needs of the students by emphasizing the need for educational opportunities to help students internalize multiculturalism, particularly in institutions that prepare teachers.

Regarding the relationship between teaching experience in multicultural classrooms and teacher-student relationships, Italy showed a more positive association, while France and Spain displayed a decline in the relationship with increasing teaching experience ($H_{3.2}$). According to these findings, teachers working in multicultural classrooms require continuous professional development and assistance to successfully navigate the difficulties and build strong relationships with their students (Forghani-Arani et al., 2019). A decline was explored in the association between teacher-student relationships and teaching experience in multicultural classrooms in France and Spain, which suggests that the ability of teachers in these nations to build effective relationships with students from different backgrounds may have decreased as they gained more experience. These results underline the necessity of ongoing assistance and instruction for teachers in France and Spain to give them the knowledge and abilities to develop lasting relationships with their students throughout their careers as educators.

The presence of students from multiple ethnic backgrounds in the school influenced the general school climate differently, and an increasing trend was detected in Spain, but it was decreasing in Turkey ($H_{5.1}$). Similarly, it was also revealed that the teacher-student relationship was negatively affected by the presence of multiple ethnicities in Turkey, but not in France, Italy, and Spain ($H_{5.2}$). In other words, in Turkey, the interaction between students and teachers was negatively impacted by the presence of various ethnic groups in the classrooms. This could be because Turkish teachers' relationships with students from different cultures may be influenced negatively as a result of the difficulties teachers may encounter when working with students from various ethnic backgrounds. In contrast, the presence of multiple ethnicities in the schools of France, Italy, and Spain did not significantly impact the relationship between students and teachers, which may result from teachers' development of the necessary methods and strategies to successfully manage the diversity of their classrooms and strong interactions with students from different ethnic backgrounds. These findings revealed the complex dynamics between student diversity, school climate, and teacher-student relationships, which suggests the need for inclusive practices and strategies promoting positive interactions and cultural understanding among students from diverse backgrounds (Hoti et al., 2017; Khairutdinova et al., 2022).

The models established for each country identified specific factors that positively influenced the school climate and teacher-student relationships ($H_{6.1}$ and $H_{6.2}$), which aligns with the existing literature. A supportive environment at school promotes the growth of positive relationships between students and teachers and the effective management of behavioural and psychological issues; therefore, a welcoming learning environment is critical for diverse student populations (Hoti et al., 2017; Khairutdinova et al., 2022; Thapa et al., 2013).

In conclusion, the findings of the present study demonstrated several notable differences in school climate, teacher-student interactions, teaching experience, student diversity, and diversity practices among France, Italy, Spain, and Turkey. These results contribute to the understanding of the intricate interactions between student diversity and school climate in Mediterranean countries. Hence, it is significant to promote inclusive educational

environments in schools and implement effective diversity practices to foster positive school climates and enhance teacher-student relationships.

Conclusion

In summary, this study explored the significant variations in school climate, teacher-student relationships, teaching experience, student diversity, and diversity practices among France, Italy, Spain, and Turkey. Accordingly, some important practical implications can be recommended to educators, policymakers, and researchers. The results indicate that teachers need specialized professional development programs to improve their ability to teach in multicultural environments and to satisfy the requirements of various student populations. Moreover, the differences in diversity practices among the countries underscored the importance of implementing inclusive policies and strategies promoting cultural expression, addressing discrimination, and incorporating global themes in curricula as detected in Spain, France, and Italy, which can serve as valuable examples for other countries exploring to enhance their diversity practices. Additionally, regarding the variations in school climate and teacher-student relationships, it is a requirement for practitioners and teachers to foster positive and inclusive learning environments. Therefore, educators and school administrators should prioritize creating supportive school climates that should promote student well-being, academic achievement, and social-emotional development for all. Strong teacher-student relationships should be built and teachers should be provided with the necessary support and professional development to navigate the challenges of multicultural classrooms. It is also essential for education systems to invest in teacher training programs that equip educators with the knowledge, skills, and resources including cultural competency training, intercultural communication skills development, and strategies for creating inclusive learning environments to effectively teach in diverse classrooms.

For future investigations, it would be valuable to explore the long-term effects of diversity practices on student outcomes, and the role of specific interventions and policies in enhancing school climate and teacher-student relationships. Additionally, examining the perspectives and experiences of students, parents, and school administrators regarding diversity and their influence on school climate can provide further insights into the dynamics of diverse educational settings.

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Motivation and Language Learning Narratives: A Case Study of Indonesian Students

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Abstract

Motivation is a foremost aspect in language learning and has been extensively studied in the field of SLA due to its important contribution to pedagogical implications. However, SLA scholars/researchers have overwhelmingly preoccupied specifically with Asian students such as Japanese and/or Chinese (Gong et al, 2020; Kikuchi, 2019). This ignores the unique individual differences that Indonesian students have which contribute to their learning trajectories. The present study investigated the factors of individual differences influencing their motivation in learning English as foreign language and how the ideal L2 self is expressed through their language learning narratives. A total of two Indonesian students studying abroad in one of the research-integrated universities in the US participated in this study during the Fall semester. Through three stages of open-ended interviews and the researcher's observations, the data were collected and analyzed using narrative analysis and the L2 Motivational Self System (L2MSS) proposed by Dörnyei (2009) as framework. The analysis revealed that factors such as family background and socioeconomic status, education system inequality, and access to the target language contribute to their perception of their ideal L2 self. Additionally, this study contributes to a more comprehensive understanding of Asian immigrant students as a whole and helps to avoid stereotypical identities of Asian students based on previous research.

Keywords: L2MSS, motivation, narratives, individual differences, Asian immigrant students

Studying abroad experience has become an interesting topic to discuss. Franklin (2010) and Stroud (2010, in Anderson et al., 2015) argue that students and parents believe studying abroad could enhance career prospects in relation to securing interviews, receiving job offers, and accelerating career progression. Apart of the economic benefits, it is also believed that this experience can greatly enhance students' acquisition of a second or foreign language. Yahsima (2009) argues that the learners need to have an embodied experience of using the language or having the feeling of mediating one's thoughts or interpersonal relations using the language. Studying abroad highlights the creation of the feeling that an individual need to use the language as a matter of communication and survival in the native speakers' country. Additionally, questions pertaining to the factors that contribute to one learner's success over another, the motivations that drive them, and the strategies they employ to attain their objectives in language learning are undeniably compelling and noteworthy. Various variables come into play that influence learners' performance, encompassing cognitive, environmental, and cultural factors.

One of the variables to examine here is motivation. Ushioda (2009, as cited in Thompson et al., 2015) asserts that motivation has garnered substantial attention from researchers in Second Language Acquisition due to its crucial role in determining whether learners acquire language skills, the level of effort they invest in their learning, the duration of their persistence in learning, and the overall success of their language acquisition endeavors. Additionally, mastering a second or foreign language, such as English in this context, especially for Indonesian, is regarded as a fundamental aspect, particularly for students studying abroad, as they must utilize the language both academically and in their daily lives. Motivation is usually understood to refer to the desire to initiate L2 learning, and the effort employed to sustain it, and in lay terms we all understand it to be a matter of quantity, as in the everyday observation that some learners are highly motivated, and others have little or no motivation (Ortega, 2009). Gardner (2001) believes the highest and most facilitative form of motivation is what he called the integrative motivation, which is attained only when three conditions are met: (1) the antecedent of integrativeness itself is high, (2) motivation quantity (that is, the combined amount of effort, enjoyment, and investment) is also high, and (3) attitudes towards the learning situation (teachers, curriculum) are positive.

Relating to Gardner's (2001) socio-educational model of second language acquisition focuses on language learning taking place in the classroom and stresses that motivation is one variable important in second language acquisition, it is proposed that motivation is supported by two other affective components, integrativeness and attitudes toward the learning situation, and that the complex of such attitudes and motivation reflects an integrative motive that promotes language learning (Gardner, et.al., 2004). Dörnyei (2009) reflects the changes of Gardner's motivation construct and suggests that motivated behavior is determined by three major motivational dimensions; integrativeness, instrumentality, and attitudes toward the learning situation, which corresponds closely with L2 Motivational Self System (L2MSS).

The L2 Motivational Self System represents a major reformation of previous motivational thinking by its explicit utilization of psychological theories of the self, yet its roots are firmly

set in previous research in the L2 field (Dörnyei & Ushioda, 2009). L2MSS is a combination of the self-dimensions in Higgins's (1987) self-discrepancy theory and the conceptual content of Markus and Nurius' (1986) possible selves' theory. The concept of L2 motivation was framed as an outcome of how a learner perceives the relationship between his or her current and future concepts of self (Papi, 2018). The L2MSS proposes that language learning motivation is primarily composed of three facets: the ideal L2 self, the ought to L2 self, and the learning experience. The ideal L2 Self is a powerful motivator for who a learner would like to become in learning the L2 because of the desire to reduce the discrepancy between the actual and ideal selves. The ought-to L2 self emphasizes learner's belief in achieving the expectations and avert negative outcomes. Whereas L2 learning experience concerns about the influences of the environment such as the teachers, the curriculum, and peer groups. Below is the definition of each facet in L2MSS proposed by Dörnyei (2009):

Table 1

The L2 Motivational Self System (Dörnyei (2009) in Thompson & Vasquez (2015)

Component	Definition
Ideal L2 self	The ideal L2 self is the person one would like to become regarding a second language. Powerful imagery helps language learners reach their ideal L2 selves with the language in question.
Ought-to L2 self	The ought-to L2 self is the person one should become to meet external/societal expectations and to avoid negative consequences of not learning the language in question.
L2 learning experience	This aspect of the L2MSS does not correspond to a previous theoretical model, but instead focuses on the very real impact of past and current language learning experiences. These can include interactions with instructors and peers, curricular design, and experiences of successes or failures.

As previously mentioned, the L2 self is the most powerful motivator in terms of learning a new language. In other words, a learner who has developed her/his ideal L2 self will most likely succeed in learning the language. According to Markus and Nurius (1986) cited in Al-Shehri (2009), possible selves 'represent individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming, and thus provide a conceptual link between cognition and motivation. A comparative study conducted by Taguchi et al (2009) on the validation of L2MSS in three important Asian contexts (Japan, China, and Iran) shows that there is correlation of the L2MSS and the integrativeness which can be relabeled as the ideal L2 self. The authors confirm instrumentality is classified into two constructive aspects: promotion and prevention which have strong impacts on the development of the self, depending on the internalization of external stimuli. This implies that learners' motivation is context-specific and influenced by many factors in learners' surrounding. This corroborates with Papi's (2010) study on Iranian learners' motivation using L2MSS and its contribution to their anxiety and learning effort. It shows that all variables in L2MSS contribute to learners' intentions and ideal L2 self minimizes their level of anxiety. Furthermore, a study conducted by Lamb (2012)

investigating 527 Indonesian junior high school students in three distinct contexts: a metropolitan city, a provincial town, and a rural district. The study shows positive L2 learning experience was the strongest predictor of learning effort and L2 proficiency. He also argues, since ideal L2 self only marginally influence participants' achievement, this might be explained by the fact that during early adolescence, ideal selves often leaned towards being idealistic and vague and it became less likely to stimulate actual learning behaviors.

Several studies using L2MSS framework also investigate motivation with the lens of individual differences such as language aptitude (Stenberg, 2002), learner attrition (Olsen, 2017), anxiety and self-efficacy (Ueki & Takuechi, 2012) help to provide insights for further studies. Thus, the present study investigates the motivation and the construction of ideal L2 self, or possible selves added with the perspective of L2MSS framework proposed by Dörnyei (2009) and seeks to answer these questions:

1. What are the factors of individual differences drawn from the participants' narratives?
2. How the ideal L2 self is expressed in the participants' language learning narrative?

Methodology

Setting and Participants

The study was conducted in a research-integrated state university in Arizona, United States with two Indonesian study abroad students as the participants. During the Fall 2022 semester from September–December, I reached out to approximately five Indonesian students who were currently studying abroad to participate in this study. The invitation with the selection criteria was sent out to mailing group of Indonesian students. Only three out of five participants replied and agreed to participate in the study. However, one participant decided to withdraw from the study due to health problem. Therefore, John and Nick (pseudonym) became my primary participants in this study. Although, their participation was considered foremost and beneficial as they represented two distinct parts of Indonesia.

John

Throughout the study, John was second year MTESOL student. He came from eastern part of Indonesia, specifically Flores Island. He earned his bachelor's degree in English education from an accredited University in Yogyakarta, Central Java. He considered himself as multilingual since he spoke several local languages such as Ngada, Bahasa Indonesia, and English as foreign language. John grew up with diverse cultural and linguistic background. The primary language used in his schools was native language—Ende-lio—which was his mother first language. His exposure to Bahasa Indonesia was rather limited.

Nick

Nick was a third-year undergraduate student studying construction management. He came from western part of Indonesia, specifically Tangerang. Before coming to Arizona, Nick studied and lived in Taiwan for three years, then moved to Seattle and stayed for two years. He also considered himself as multilingual since he came from a diverse cultural family background. His father was a native speaker of Sundanese, while his mother was a native speaker of Javanese. He went to school where the primary language was Bahasa Indonesia and English as second language. Because of his Chinese blood, his parents sent him to Taiwan and had him to learn Chinese/Mandarin. He spent a year to work on the language before he could use the language in classroom and daily interaction.

Data Collection and Analysis

To collect the data, I conducted three stages open-ended interviews and field notes taken during the interviews. The objective was to seek (1) the participants' demographic information and life history, (2) the participants' learning trajectories and how they use English as foreign language in academic setting and daily social interaction before and during their time studying abroad, and (3) the participants' struggles of learning and utilizing English as FL as well as their investment in increasing their motivation to utilize the English as FL. To maintain its flexibility and comfortability, the interviews were conducted either in-person or online depending on the participants' availability, and the choice of language used during the interview. Both participants chose and agreed to use Bahasa Indonesia for practical reason and to avoid any misunderstanding.

To analyze the data, I employed narrative analysis approach with Dörnyei's (2009) L2 Motivational Self System (L2MSS) as the framework. As a matter of research ethic in social behavior, I applied for IRB approval before conducting the interviews and had the participants to sign the consent form. Next, I transcribed and coded by adopting Lichtman's (2013) 3C's of data analysis: codes, category, and concept. First, I read and analyzed each transcription and field notes, the codes emerging from the data were noted and compiled into appropriate groups. These steps built themes and once all codes were created I began to analyze them qualitatively through narratives. Moreover, Barkhuizen (2016) discusses one of the importance of narrative research is that narrative has acquired as a resource that individuals draw upon in the construction of their identities and the stories that they tell help researchers understand the ways in which they situate themselves and their activities in the world. In other words, narrative research goes beyond surface-level descriptions and seeks to understand the deeper meanings and cultural contexts embedded within narratives. It recognizes that narratives are not just about transmitting information but also convey cultural, social, and personal significance. This approach allows researchers to explore the complex interplay between individual experiences and broader sociocultural contexts. Additionally, I also provided my reflection and positionality for having similar identity with the participants as Indonesian and EFL speaker.

Findings and Discussion

Factors of Individual Differences

This study uncovers three primary factors related to individual differences that contribute to the motivation and expression of the participants' ideal L2 selves. The first factor revolves around the influence of family and socioeconomic status, followed by the impact of educational system inequality as the second factor, and finally, the significance of access to the target language as the third factor. These factors align with the concept of regional distinctions, reflecting the specific backgrounds and circumstances of the participants' respective origins.

A.   Family and Socioeconomic Status

John comes from a family that places a high value on education, with both of his parents working in the field of education. His father holds the position of a vice principal in one of the state schools in Flores. Reflecting on his journey, John begins his narrative by highlighting how his father played a pivotal role in his initial exposure to the English and opens doors to learn the language. John goes on to express his aspiration of becoming a multilingual individual proficient in English, envisioning his ideal L2 self. His parents serve as his role models, having already achieved the same goal, even though they may not have had the opportunity to study abroad. Nonetheless, they have guided and inspired John on the path towards personal growth and becoming a better individual.

> "So, actually. I have been learning English since I was a kid. I think I was 6 years old when I was used to it. because my father often liked to play music. when I was a kid. Played some western songs." (2nd interview).

> "Coincidentally, my mother and father are teachers. so I already have the reading habit. Father often brought some English story books. Even though I didn't understand, my curiosity had appeared. There was an English dictionary that my father brought for us. Those opportunities have shaped me to become who I am today." (2nd interview).

In Dörnyei's framework (2009), the individual's competence serves as a significant motivational factor that drives them to become a successful language learner. John's fortunate circumstance of having parents who genuinely care about his education and personal development as well as provide diverse opportunities to immerse himself in the target language, serves as a powerful source of motivation. This was particularly crucial as he recognized that the likelihood of success as a language learner was quite low due to the challenging environment in which he lived, where access to resources was limited. Nevertheless, the dedication of his parents and the experiences they afforded him ignites his own determination to achieve proficiency in a foreign language.

Figure 1

Factors of Individual Differences
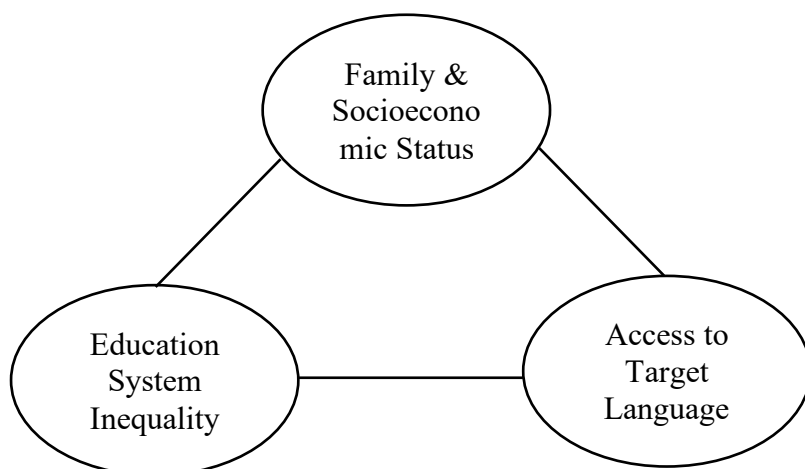
> "They never forced me to learn. But I always remember they used to say they have hope that I can change the family. They did not have opportunity to study abroad, and they always hope I could be the son who gains degree from abroad. Even if everything is limited, my parents never give up their hope. And here I am studying in the US because of them." (3rd interview).

John acknowledges that their decision was not solely influenced by their family's strong educational background. The public discourse surrounding also had an impact on their choice to pursue studies abroad. Despite coming from a family with a solid educational foundation, the external tensions and discussions within the public sphere also influence their decision to seek higher education opportunities overseas. Despite his parents' occupations as a vice principal and a teacher in a state school, they could only support him in obtaining a diploma degree, which would make it easier for him to find a job upon graduation. However, upon graduation from high school, John decided to pursue his bachelor in Yogyakarta, Central Java and studied English education. He acknowledges that although his parents were facing financial difficulties at the time, he was able to contribute by working part-time to manage the situation.

> "I wanted to study accounting, but my parents could not afford to pay for the college. So, I decided to study English education and that way I can also work part-time. My parents had to finance four children and colleges were expensive. I also think it was not really bad idea after all. I mean I love English, and I know my parents also want us to be able to step forward." (2nd interview).

John openly acknowledges that it was challenging to pretend to have an interest in a subject of study. He reveals that he experienced various fluctuations in motivation and moments of self-doubt, questioning whether he would be able to utilize the degree he would eventually obtain. Nevertheless, John consistently reminded himself and would not give up or lose motivation in completing his studies, while also ensuring his proficiency in the English language remained on track. This corroborates with finding from Taguchi and colleagues (2009), the representation

of L2 Ought-to-Self shown in his learning trajectory to meet his and family's expectations and avoid undesirable outcomes.

> "I didn't want to feel insecure or anything. I tried every opportunity. After college, I started to think that English is required for many job opportunities. At work, some of my friends came from abroad which required us to be able to communicate in English. From that, I started to apply to some YSEALI programs. The training was held overseas. The most recent was in 2018 where I went to the US. So, those opportunities shaped my identity in speaking English." (3rd interview)

Compared to John, Nick comes from a family with high socioeconomic status who also value education. For generations, his family has embraced the belief that pursuing goals through studying abroad is an excellent pathway to achieve success. His parents are both entrepreneurs, his brother pursued high school in Taiwan and earned his bachelor in US university. Unlike John who had to rely on scholarship, Nick has been provided access to pursue education abroad.

> "My parents believe education is number one. I think they sent us to bilingual schools ever since we were in kindergarten. They want us to learn English formally and informally. I remember they used to tell us to pick any activities that involved foreign languages. They also would hire private tutor to teach us English after school." (2nd interview).

His admiration towards English grew since he exposed to English movies and attached to his brother's reflection of studying abroad in English speaking country. However, as he entered high school, his parents sent him to Taiwan that made him a little bit of disappointed as he had to start a year before his class studying Mandarin. He describes that he went through many silent periods and demotivated to study. This opposed Noels' (2001) argument that motivation is internally related as opposed to external motives. Nevertheless, Nick's narrative provides a clear view that motivation is socially and culturally constructed.

> "They sent me to Taiwan for my high school. I felt down for a while. I like Mandarin but I like English more, and I wanted to be like my brother, studying in the US. He used to tell me that he wanted to go to the US and work here because the opportunity is big to earn more money and that is why the US is known as the land or country of opportunity. So, that is why I am motivated to be able to speak English. I think my brother has opened a way that brings me here and pursue my study here." (2nd interview).

Nick views his brother as his primary role model to learn language. He emphasizes how his brother's own learning experiences greatly influenced his desire to become proficient in both Mandarin and English. Despite his difficulty in learning Mandarin, he receives big support from his brother to keep his motivation to graduate from high school and pursue his higher education in English speaking country. When asked about his investment, he mentions the hours he put into learning both foreign languages and his willingness to communicate (MacIntyre, 2007)

indicate that there is balance between his motivation to learn and investment which contribute to his success in acquiring both languages.

> "My family always gives us everything we need when it comes to education. In Taiwan, they provided me with best tutors and activities so that I could keep up with the language and school. However, sometimes it comes within yourself whether you liked it or not. I honestly at first failed many times and had to try again and again. I also must maintain my English that time. I talked to my brother who was in New York, and he helped with my English. So I used to juggle between Mandarin and English because I don't' want to lose one of them." (3rd interview).

Learning two foreign languages at the same time was not easy for Nick. He dealt with numerous challenges such as a demanding environment, and anxiety. He felt uncomfortable and often disconnected. Even if it took him a while to participate fully in his communities, his level of intercultural awareness (Mirzaei et al, 2013) equals to his communicative competence as a result of his investments. He explains that he intentionally distanced himself from fellow Indonesian native speakers to ensure he had ample opportunities to improve his proficiency in Mandarin. Prior to that, he isolated himself from almost everyone and dedicated his time to self-study in his dorm. He states that his focused efforts on studying from books would be sufficient to pass the language proficiency exam, and supported by his willingness to communicate and associate with Mandarin native speaker. Nick has big desire to finish high school quickly and move to an English-speaking country for his higher education. His story reminds me of Ortega's (2009) argument that the influence of immediate learning environments on learner's motivation and the development of his possible L2 self.

B. Education System Inequity

John and Nick come from two distinct regions in Indonesia. John comes from Flores, eastern part, while Nick comes from Tangerang, western part of Indonesia. Relating to education and region disparity in Indonesia, Suryadharma (2016) explains that there are two types of region segregation in Indonesia which consist of Java and Bali versus outside Java and Bali, and Western Indonesia versus Eastern Indonesia. Both of the participants' narratives help to distinguish the inequity on the basis of education system and facilities.

John learned English formally for the first time in high school with limited resources. In John's school and most public school in Flores had limited human resources – English teacher – which contribute negatively to the development of the language in Eastern part of Indonesia. This was also mentioned by Azzizah (2015) that the disparity of education is seen from the teachers and textbooks used as well as medium of instruction in Eastern part of Indonesia do not provide sufficient knowledge compared to the facilities, textbooks, and teachers' resources in Western part of Indonesia. John specifically describes in his narrative that the medium of instruction

used in his English class was local language. Due to this, the impact was seen from his friends facing challenges in acquiring Bahasa Indonesia and English.

> "English was taught formally for the first time in high school. The teachers were non-native speakers. We didn't necessarily learn the skills; it was mostly learning vocabularies. Most of my friends who had difficulty in speaking Bahasa Indonesia, they thought English was not necessary to learn. I remember it was hard to find partners to develop my English. I mean everything is limited there. So, pursuing my master's degree abroad also have me thinking that the education system should be revised especially in Eastern Indonesia. I mean we should get equal opportunity to learn languages or any other subjects." (3rd interview).

Meanwhile, in the Western Region, English has been introduced since kindergarten. Nick's parents provided him with the opportunity to learn the language formally from an early age. The division of educators and resources are considered equal in private and public school, even though the medium of instruction in private school is English compared to public school whose goal is promoting Bahasa Indonesia. Nick emphasizes that English is commonly used in everyday conversations, and the majority of books used in schools are written in English. Additionally, many instructors – specifically in private schools – are native English speakers. The education system in the western region has experienced rapid growth compared to the eastern region. This growth has both directly and indirectly influenced the students' performance in language proficiency.

> "I think it wasn't because the the limitation of English tutors or schools that provide English as medium of instruction or English subjects. In fact there were many many native speakers and schools' systems are about English as medium of instructor. My parents were confused for which school I should attend. Even at school, for particular days, we weren't allowed to speak language other than English. (3rd interview).

The comparison of education system in western and eastern regions could visibly be seen from the use of English and local language as medium of instruction. Azzizah (2015) argues that it is challenging for the students to get accustomed to using and absorbing study materials explained and written in Bahasa Indonesia and English, because the local languages are still used predominantly by the majority of students in eastern region. In correlation to Csizér and Lukaćs' (2010) study on students attending well-equipped schools have more opportunity to study their preferred second language (usually English) as early as elementary school in contrast to students attending less well-resourced schools who usually have to wait until secondary school, resulting in a substantial difference of 2 or 3 years versus 8 years of English instruction. This disparity in

program design had a detrimental effect on the language learning motivation of students who had to start learning English at a later stage.

C. *Access to Target Language*

The third factor found in the participants' narratives is accessibility of learning the target language. This factor can also be regarded as the effect of education system inequality between both regions. John describes his challenges in learning the language due to inadequate facilities such as limited access of internet connection. Consequently, he could not optimally study for his language proficiency exam as part of his scholarship application.

> "I feel like I have a big responsibility for what I want to achieve. So, I always want to pursue my master's degree because I want to reflect on what I have accomplished and done for 4 years in my undergraduate degree. When applying to Graduate school we need to have an IELTS certificate, and when I learned IELTS, the biggest challenge was COVID-19. Because in NTT (East Nusa Tenggara), the internet connection was always down, and I was left behind. So, I learned by myself. I downloaded some exercises on the website because my time was limited, and I should get 7 out of 9. I almost never slept. I remember it was 10 to 14 hours a day." (3rd interview).

In his narrative, John shows his dedication and investment to study for his IELTS exam despite having trouble with network connection. This shows a correlation between doing well on English standardized tests and his personal aspirations (Du & Jackson, 2018). John's investment helped him to succeed obtaining the perfect score and received the scholarship to study abroad. In contrast, Nick explains that he did not face any issues with access or infrastructure. In fact, he had unlimited internet connection and access to private tutors. Nick reveals that he experienced motivational shift when his parents sent him to Taiwan, but upon returning to Indonesia, he improved his commitment to learn English by hiring several English tutors in preparation for his educational journey to the US. In addition, Nick's confidence on his ability in learning the language was framed by the access provided.

> "I always knew I would pass the IELTS test. Well, to get back on track, learning English from the beginning after the Taiwan experience was difficult. So, I took IELTS intensive private class for 2 months, approximately 6 hours per week. My first overall IELTS score was 6.5 and the second was 8, and then I continued to Shoreline Community College at Seattle before I transferred to Arizona State University." (2nd interview)

However, his confidence dropped when he entered community college in Seattle. This happened specifically because after spending years in Taiwan, as well as the objective of learning English was only to achieve perfect score on the language proficiency tests. However, upon reflecting on his past experiences, he believes that no matter the difficulties he faced, he always had a set of effective strategies to overcome obstacles. One of the strategies was practicing to communicate with native speakers. Even though he acknowledges that he may still encounter

difficulties with English pronouns like he/she and it, which could be influenced by his native or first language, he focused in learning the language through social interaction (Lee, 2014) which also helped to restore his language learning investment.

Expression of Ideal L2 Self

The participants' narratives on their experiences in learning English envision themselves to become their ideal L2 self. Despite the various factors that have influenced their individual experiences, they had their own strategies to keep their motivation and investment in learning the target language. Moreover, Mendoza and Phung (2018) argue the Ideal L2 Self is an L2-specific aspect of the ideal self a person aspires to become. That person visualizes his or her future self as proficient in the target language. For John, his region of origin serves as the barrier in attaining his ideal L2 self, as limited access and his family's financial situation motivate him to succeed in his target language and pursue his goal of studying abroad. Additionally, John faces a motivation challenge related to his ethnicity. Being born in the eastern part of Indonesia, some people doubt his potential for success. However, John's dedication to do self-study and immerse himself in the target language exemplifies his determination to succeed, even in the face of societal norms that may push against his aspirations (Brehm, 1966, as cited in Thompson & Liu, 2018).

Moreover, it is also related to dynamic systems theory (Cameron & Larsen-Freeman, 2007), which takes into account how motivation is impacted by time, material resources, opportunities to learn, developing relationships with speakers of the target language, and access to target communities. In Nick's account, he was fortunate to have unlimited access since his family's financial situation and his region of origin support his development in learning the target language. However, unlike John who views his parents as his biggest motivation and as the figure to shape his ideal L2 self despite the obstacles, Nick views his brother as the person who paved the way to achieve his language learning goals. Nick's aspiration to achieve proficiency in a foreign language shape his ideal L2 self, which is interestingly constructed and influenced by his brother's ability to envision himself as a successful language learner.

Looking at attribution theory proposed by Weiner (1992, as cited in Martinović & Burić, 2021), the narratives provided by my participants describe the assumption that individuals to understand the causes of their success and failures. This attribution will somehow affect their emotional reactions and behaviour in the future. John and Nick were fully aware of his struggles to achieve a certain proficiency in language, and to reach their goal pursuing higher education in English speaking country. In addition, the awareness of being successful or failure is considered prominent variable for the expression of ideal L2 self.

Researcher's Reflexivity

The participants' motivation shift and their expression of the ideal L2 self have demonstrated a dynamic and intricate nature, as they projected their learning trajectories to become proficient language speakers in their envisioned future. As a researcher, I am fully aware of the

preconceptions surrounding the factors that contribute to my participants' motivational shift and the expression of their ideal L2 selves. As the researcher shares the same regional background as Nick, there is a deep understanding of the factors that can influence an individual's proficiency level compared to others. Additionally, during the interviews and observations, I relate to my own personal story, recognizing the similar journey of experiencing a series of motivational shifts to express my own ideal L2 self.

Conclusion

The participants helped to unpack the factors of individual differences that significantly contribute to the motivation and expression of ideal L2 self in learning target language. The disparity between participants' region of origin became a major point of any inequities such as socioeconomic status, education system, and accessibility of infrastructure to sustain the language learning. The participants' motivational trajectories have implications for National education to further assess and offer equity in terms of medium of instruction, educators, and accessibility to help students in eastern region better adapt to the environment.

The analysis of the participants' narratives afforded fresh insights into why motivational shifts contributed most to the participants' ideal L2 self as shown in their aspiration of becoming who they want to be and the investment they put into becoming the aspired individual. The continuous interactions between the participants' perceptions of the changing learning and social context (Du & Jackson, 2018) influenced their sustain enhancement in motivation to learn the target language.

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The Impact of Supervision Process toward Counselling Competencies among Malaysian Trainee Counsellors

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Abstract

The main objective of this study is to investigate the level of counselling competencies among trainee counsellors in supervision. It also aims to analyze the relationship between frequency of supervisions with counselling competencies. This study was conducted among trainee counsellors (counselling students) from nine public universities all across Malaysia that offer bachelor programmes in counselling. The respondents consisted of n=204 trainee counsellors and n=62 lecturer supervisors who were selected in pairs using stratified random sampling. The Counselling Competencies Scale was used to assess the counselling competencies of trainee counsellors. The results of the study revealed that most of the respondents were at the "meets expectations" level of the counselling competency. The results also showed that there was a significant relationship between the frequency of supervisions with two sub-scales of counselling competency, namely professional behaviour (d=.180, p<.009) and counselling skills (d=.169, p<.019). This research finding has implications for the training field of counselling education in Malaysia. Additional research on other areas, such as the other contribution factors toward the trainee counsellor's competency is needed for future studies.

Keywords: Malaysia, supervision, counselling competencies, trainee counsellors

Our lives today have become more challenging as urbanization and globalization have come into the fore. The idea of urbanization and globalization may be intimidating to many, as it is all about the resistance to change. With globalization, there will be transitions in terms of jobs, cultures as well as the environments and lifestyles, and in effect, people have to deal with these changes. In response to this form of modern lifestyle, nowadays counselling is acknowledged as a professional service equipped with various approaches and techniques that can assist humans when dealing with psychological distress and mental health problems (Arifin et al., 2022).

As a result, there is a demand for counsellors in providing research-based and structured counselling services competently (Farozin, 2019; DepPue & Lambie, 2014; Falender & Shafranske, 2014; Swank et al., 2012; Zakaria, 2013). Therefore, it is worth pointing out that counsellors shoulder various responsibilities for clients with psychological and mental health struggles. Ideally, to become a competent counsellor, all aspects of competence need to be developed from the beginning of counsellor training and education (Bernard & Goodyear, 2019; McLeod, 2013; Setiyowati et al., 2019; Zakaria & Warren, 2016). Unfortunately, a trainee counsellor does not develop in a vacuum and requires the readiness to bear responsibility for personal learning in many areas. As stated by McLeod (2013), educating a counsellor involves many aspects such as the system of education, training, and also support to produce and maintain the quality of counselling services offered (Zakaria et al., 2017).

Therefore, counsellor education programmes are designed to ensure that their trainees are efficient, that they can persevere through difficult periods of counselling, exert themselves to work effectively with a complex range of clients, and demonstrate a high level of competence in dealing with their clients (Zawawi & Al-Ali, 2014). In view of this, counselling internship (Mohd Ali et al., 2020) and supervision process (Alis et al., 2017) are both among the main elements in counselling degree courses in Malaysia that need to be undertaken concurrently as stated in the Counsellor Training Standard and Qualification (Malaysian Board Counsellors, 2015) guidelines.

Counselling internship is a form of post-practicum experience training supervised with the purpose of enabling students to scrutinize, increase and strengthen the counselling knowledge and skills application at the professional training hubs (Malaysian Board Counsellors, 2015). The internship training needs to be executed in any organizations, institutions or clinics that prepare counselling services and it is part of the supervision process.

Although Malaysian Board of Counsellors has presented a clear guideline, counsellor educators and supervisors find it really challenging to develop and empower their trainees' competency, due to the complex nature of the supervision process (Arifin et al., 2022). That is why the extent of the actual competency level achieved by trainee counsellors is still open for debate (Falender, 2014). Additionally, the researchers also found that the studies or writings related to the topic of trainee counsellors' competency are also very limited especially in the context of supervision in Malaysia.

That said, the past literature shows that most of the studies related to supervision practice have been conducted through the lens of Western supervision practices (Falender et al., 2021). In the context of Malaysia, there are supervision studies conducted by Mat Min (2017), Ahmad (2016), Alis and colleagues (2014), Ghazali (2015), Norwati & Wan Mazwati (2013), Mohd Nor (2012), Wan Jaafar (2007), and Abdul Ghani (2007). However, none of the studies have focused on the true competency of the trainee counsellors in supervision. One of the root causes to this issue is the lack of competency instrument.

There are several instruments labelled as the counselling competency measuring tools such as Helping Skills System (Hill & O'Brien, 1999), Skilled Counselling Scale (Urbani et al., 2002), and Counselling Skills Scale (Eriksen & McAuliffe, 2003). However, all the instruments are limited to only one component namely counselling skills (Lambie et al., 2018; Swank et al., 2012). Until today, there is only one instrument which is Counselling Competencies Scale (CCS) that can measure counselling competency in a comprehensive supervision (Lambie et al., 2018) as utilized in this study. Given that no research has been done in Malaysia to investigate the actual mastery level of trainee counsellors on the counselling competency in the supervision, this study has been conducted to reduce the paucity existing in the previous study through the following two objectives:

1. To investigate the level of counselling competency of trainee counsellors in the supervision process; and
2. To analyse the relationship between the frequency of supervisions with counselling competencies.

Literature Review

Among the earliest literature found to have discussed counsellor competency was Gross and Robinson (1987). These writers discussed five main components that have to be possessed by a competent counsellor including (1) have to display accurate professional qualification; (2) professional growth through involvement in professional activities; (3) services can only be offered by those having acknowledged qualification; (4) always maintaining knowledge and qualification at the best level; and (5) able to help the client resolve the issue more effectively.

In other words, the use of supervision process is a crucial element in counsellor development during training and throughout the working life of the counsellor (American Counselling Association, 2014; Bernard & Goodyear, 2019; Malaysian Board Counsellors, 2015; McLeod, 2013). In the supervision process, there are support and education activities from the supervisor to channel the counselling profession's knowledge, skills, and attitude (Bernard & Goodyear, 2019); professional value and identity (Barton, 2016; Zakaria et al., 2017); as well as instruction, modeling, and mutual problem-solving to trainee counsellors (Falender & Shafranske, 2004).

Other than that, supervision is also a form of evaluation to the development that has been achieved by the trainee counsellor throughout their internship training (Bernard & Goodyear,

2019; Kabir, 2017). Meanwhile, Watkins (2020), found that previous studies had proven that the supervision process really helps trainee counsellors to go through with the session, increase their self-awareness and self-efficacy; have a positive correlation with work satisfaction and able to deal with obstacles and workload effectively.

It can be concluded that one of the main aims in the supervision process is to empower the competency of trainee counsellors (Arifin et al., 2022; Falender & Shafranske, 2014; Swank et al., 2012; Vassara & Papavassilio-Alexiou, 2021; Bernard & Goodyear, 2019).

For the competency definition that was first identified in counselling, it was found under the psychology branch introduced by Epstein and Hundert (2002) which is: "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community with curiosity, self-awareness, and presence" (p. 227).

Nonetheless, this definition received criticism from Ridley and colleagues, (2011), who questioned how "the habitual and judicious use" can be illustrated. Even so, terms like "clinical reasoning, with curiosity, and presence" were also criticized as they had broad meanings, were ambiguous and vague. Based on the literature survey, early on, counselling scholars only discussed and put forth the idea that the competency of a counsellor only depends on their mastery towards counselling skills for instance in Egan (1990), Hill (1990), and Ivey and Authier (1978).

However, ideas like this contradict the view of McLeod (1992) who opined that the competency of a counsellor depends on any quality, capability or factor that can influence his or her effectiveness in doing tasks or playing their role. According to McLeod (2013), the author identified that there were seven broad areas of counsellor competence namely interpersonal skills; personal beliefs and attitudes; conceptual ability; personal 'soundness'; mastery of technique; ability to understand and work within social systems; and openness to learning and inquiry.

On the other hand, Ridley and colleagues, (2011), viewed that counselling competency is defined as a set of micro skills encompassing the cognitive, affective and behavioural components and involving therapeutic change outcome. Meanwhile, past studies like Balich and colleagues (2015), Carnes-Holt and fellows (2016), Foo and colleagues (2017), Lambie and fellows (2018), Subarimaniam and colleagues (2020), Swank (2014), Swank and fellows (2012), Warren and colleagues (2012), Warren and fellows (2013), Zakaria and colleagues (2020), and Zakaria and fellows (2022) established that counselling competency means knowledge, counselling skills, professional disposition, professional behaviour. as well as ethical sound practice and application.

Based on the discussion above, there are various definitions of counselling competency established from one scholar to another. There is nothing more critical on counselling competency other than defining the term (Pelling, 2009; Ridley et al, 2011). Up until today,

the researchers have not found, or been informed of, any consensus in regard of what an achievable counselling competency entails (Barnett et al., 2007; Xia et al., 2021).

The difficulty in determining the definition of counselling competency truly shows that the process of acknowledging trainee counsellors as competent counsellors is something that is very much prioritized in this profession. One of the main reasons is because competency is a determinant to the effectiveness of counselling process and a therapeutic outcome to the client (Ridley et al., 2011; Setiyowati et al., 2019). A counsellor without competency, who provides the counselling services may harm the clients' psychology as a whole, can ruin the profession reputation, and will affect all the counsellors in service (American Counselling Association, 2014; Arifin et al., 2022; Bernard & Goodyear, 2019; Falender, 2014; Malaysian Board Counsellors, 2015; Zakaria, 2013).

To prevent this from happening, a counsellor competency act has been made effective in Malaysia in Counsellor Ethics Code (Malaysian Board Counsellors, 2019) under Professional Competency Section (C.2) Professional Competency, sub-section (C.2.a) Competency Border, which is: "Counsellor must be carrying out their professional work in the scope of competency based on education, training, supervision experience, professional accreditation also appropriate professional experiences. Counsellors should obtain knowledge, personal awareness, sensitivity and skills, all of which are related to their services through various clients" (p. 28). Hence, promoting counselling competency among trainee counsellors in clinical supervision is very crucial in counsellor training and education programmes.

Methodology

This is a cross-sectional study which employs a quantitative method by distributing the instruments in the data collection phase. The respondents in this study are 204 trainee counsellors in their final year of internship and 62 counselling lecturers appointed as supervisors to the trainee counsellors. All respondents are from counselling undergraduate programmes from nine Malaysian public universities namely Universiti Putra Malaysia (UPM), Universiti Pendidikan Sultan Idris (UPSI), Universiti Malaya (UM), Universiti Utara Malaysia (UUM), Universiti Malaysia Sabah (UMS), Universiti Malaysia Sarawak (UNIMAS), Universiti Malaysia Terengganu (UMT), Universiti Sains Islam Malaysia (USIM), and Universiti Islam Antarabangsa Malaysia (UIAM). All these universities have been accredited by the Malaysian Qualification Accreditation and the Malaysian Board of Counsellors. A stratified random sampling procedure was used for the study.

Table 1

Demographic Information of the Respondents

Demographic information	Trainee counsellor		Lecturer Supervisor	
	N (204)	Percentage	N (62)	Percentage
Gender				
Male	36	17.6	20	32.3
Female	168	82.4	42	67.7
University				
UPSI	12	6.5		
UMT	12	9.7	10	16.1
UPM	30	14.7	4	6.5
UM	44	21.6	6	9.7
UUM	24	12.9	8	12.9
UMS	11	6.5	5	8.1
USIM	23	11.3	6	9.7
UNIMAS	30	14.7	8	12.9
IIUM	18	8.8	4	6.5
Race				
Malay	169	82.8	57	91.9
Chinese	9	4.4	2	3.2
India	8	3.9	1	1.6
Other	18	8.8	2	3.2
Settings				
Non-governmental organizations	13	6.4		
Government organizations	39	19.1		
Counselling Centre for higher studies institute	80	39.2		
School	72	35.3		
Demographic information	Trainee counsellor		Lecturer Supervisor	
	N (204)	Percentage	N (204)	Percentage
Supervision frequency				
Once	24	11.8		
Twice	91	44.6		
Three times	76	37.3		
Four times	8	11.8		
Five times	5	2.5		

Approval and ethics clearance were obtained ~~before~~ prior data collection progression from the Ethics Committee of Universiti Putra Malaysia, Reference no: UPM/TNCPI/RMC/JKEUPM/1.4.18.2 (JKEUPM). Having received the endorsement, researchers had asked for permission to conduct the study from the Academic Deputy Chancellor from every university involved. After it was approved, researchers contacted every respondent involved and asked for their permission before the instrument was distributed. The instrument set consisting of two sections was used in this study. Section A includes the demographic information of the trainee counsellors, consisting of university, gender, race,

internship setting and frequency of supervisions. Section B, on the other hand, includes the Counselling Competencies Scale (CCS) (Swank et al., 2012) were distributed to their lecturers.

For the trainee counsellor respondents, 204 sets of demography instruments were distributed using the Google Form, whereas for the supervising lecturer respondents, 204 sets of CCS instruments were sent using express post. The CCS instrument set posted to the supervising lecturer is based on the frequency of trainee counsellors selected under their supervision. As an example, three trainee counsellors under the supervision were selected. Thus, three sets of the CCS instrument will be posted to a supervising lecturer. Also, attached is a prepaid express post envelope under the name of the principal researcher to make it easier for the lecturer to return the instrument set. The CCS is an instrument used specifically to assess the counselling competencies of trainee counsellors in supervision.

The CCS consists of 32 items divided into 4 sub-scales, namely, (1) Counselling Competency; (2) Professional Disposition; (3) Professional Behaviour; and (4) Overall Competencies. The CCS instrument uses a five-point Likert scale: 8=exceeds expectations; 6=meets expectations; 4=near expectations; 2=below expectations; 0=harmful. A summary of the sub-scales, items, and CCS scoring methods can be found in Table 2, while the interpretation of the CCS scores is presented in Table 3.

Table 2
Sub-scales of CCS

Sub-scale	Items	Minimum score	Maximum score
Counselling skills	1 to 12	0	96
Professional disposition	13 to 22	0	80
Professional behaviour	23 to 32	0	80
Overall competencies	1 to 32	0	256

Table 3.
Interpretation of CCS score

Competency level	Counselling Skills	professional disposition	professional behaviour	Overall competencies
Harmful	0	0	0	0
Below expectations	2 to 24	2 to 20	2 to 20	2 to 64
Near expectations	26 to 48	22 to 40	22 to 40	66 to 128
Meets expectations	50 to 72	42 to 60	42 to 60	130 to 192
Exceeds expectations	74 to 96	62 to 80	62 to 80	194 to 256

Data Analysis

Prior to the use of the CCS, the instrument was tested twice in pilot and actual studies with Cronbach's Alpha (α) statistical tool to determine the reliability of the instrument. Reliability means that the results obtained with an instrument are consistent and stable (Pallant, 2013). For

both tests administered, the α-value obtained for CCS instruments was .96. Based on Cohen and colleagues (2007), interpretation α-value of >0.90 indicates very high reliability. This proves that the CCS is an excellent measurement tool and can be used for the purpose of this study. Data were analyzed using statistical tests such as frequencies, means, and standard deviations, meanwhile Chi-square (Somer's *d*) was used to test the relationship between the frequency of supervisions and counselling competency.

Results

Table 4 shows the analysis findings for the professional behaviour sub-scale with the mean 54.07 (SD=11.58). For this sub-scale, the majority have fulfilled the expectation level which is 129 (63.2%) respondents, followed by 46 (22.5%) respondents exceeding the expectation level, and 27 (13.2%) respondents almost meeting the expectation. Meanwhile, 2 respondents stay below the competency level, and no respondent obtains a harmful level of professional behaviour.

Table 4
Professional Behaviour Sub-Scale

Levels of professional behaviour	Score	Frequency	%
Harmful	0	0	0
Below expectations	2 to 20	2	1.0
Near expectations	22 to 40	27	13.2
Meets expectations	42 to 60	129	63.2
Exceeds expectations	62 to 80	46	22.5
Total		204	100%
Mean=54.07		Standard Deviation=11.58	

Table 5 illustrates the analysis outcome for the counselling skills sub-scale. Based on the table below, the mean score for counselling skills is 65.73 (SD=12.70). The majority of the respondents for the counselling skills have met the expectation which is 140 respondents (68.6%), 44 (21.5%) respondents exceed the expected competency level, and 20 (9.8%) respondents reach close to the competency level. Meanwhile, no respondent has obtained counselling skills score under the competency level and at a harmful level.

Table 5
Counselling Skills Sub-Scale

Levels of counselling skills	Score	Frequency	%
Harmful	0	0	0
Below expectations	2 to 24	0	0
Near expectations	26 to48	20	9.8
Meets expectations	50 to 72	140	68.6
Exceeds expectations	74 to 96	44	21.5
Total		204	100%
Mean=65.73		Standard Deviation =12.70	

Looking at Table 6 representing the distribution of the professional disposition sub-scale for the respondents (trainee counsellors), all in all, the mean of the professional disposition sub-scale is 58.66 (SD =10.76). The majority of the respondents have met the expected competency level with 109 (53.4%) respondents, followed by 78 (38.2%) respondents exceeding the expected competency level. Next, 17 (8.3%) respondents reach close to the competency level, and no respondent is found below the competency level and harmful level for this sub-scale.

Table 6
Professional disposition sub-scale

Levels of professional disposition	Score	Frequency	%
Harmful	0	0	0
Below expectations	2 to 20	0	0
Near expectations	22 to 40	17	8.3
Meets expectations	42 to 60	109	53.4
Exceeds expectations	62 to 80	78	38.2
Total		204	100%
Mean=58.66			Standard Deviation=10.76

Table 7 shows the distribution for the overall competencies level of the trainee counsellors in supervision. The mean score for overall counselling competencies is 178.46 (SD= 32.03). The majority of the respondents meet the expected competency level which is 140 (68.6%) respondents, while 53 (26.0%) respondents exceed the expectations, and 11 (5.4%) respondents have nearly met the expectation as their counselling competency level. No respondent has obtained the score under the counselling competency level and harmful level.

Table 7
Distribution of overall competencies

Levels of counselling competency	Score	Frequency	%
Harmful	0	0	0
Below expectations	2 to 64	0	0
Near expectations	66 to 128	11	5.4
Meets expectations	130 to 192	140	68.6
Exceeds expectations	194 to 256	53	26.0
Total		204	100%
Mean=178.4			Standard Deviation =32.03

Next, in Table 8 below, we have the findings for Somers' d tests analysis. Based on the findings, there is a relationship between total supervision received with two counselling competencies level sub scales among trainee counsellors namely professional behaviour and counselling skills. The results indicate that the higher frequency of supervision (more than one time) received by counsellor-in-training is found to be statistically significant and this means that they are more competent in professional behaviour ($d = .162$, $p < .009$), and counselling skills ($d = .143$, $p < .019$) compared to their peers who received supervision only once.

Table 8

The Relationship between the Frequency of Supervision and Counselling Competencies

Frequency of supervision	Professional Behaviour				d/sig
	Exceeds expectations	Meets expectations	Near expectations	Below expectations	
Once	4	17	3	0	
Twice	12	65	14	0	
Three times	28	38	9	1	
Four times	2	5	1	0	
Five times	0	4	0	1	
Total (204)	46	129	27	2	.162 / .009*
Counselling Skills					
Once	3	20	1		
Twice	16	67	8		
Three times	23	43	10		
Four times	1	6	1		
Five times	1	4	0		
Total (204)	44	140	20		.143/.019*

Discussion

This study is conducted to identify the level of counselling competencies among Malaysian counsellors-in-training, also to determine its association with the frequency of supervisions received. For the first objective, the result in this study indicates that the majority of the respondents have met the expected competency level in the overall CCS sub-scales with the mean 67.73 (counselling skills); 58.66 (professional dispositions); and 54.07 (professional behaviour) respectively. This result is relatively similar to that of DePue and Lambie (2014) that examined the impact of a training experience including supervision process toward trainee counsellors' levels of empathy and their counselling competencies. This study used the same instrument which is CCS and the measurement was made twice during the training in the midterm and final supervision period. The respondents involved 87 University-Based Community Counselling and Research Center trainee counsellor-respondents.

The results indicate that the trainee counsellors' overall counselling competency sub-scales in midterm supervision are mostly at the "meets expectations" level with the mean very similar to this study for counselling skills=64.05; professional disposition=59.66; and professional behaviours=58.48 respectively. Meanwhile, the study finding is also in line with another study conducted by Yaumas and colleagues (2018). This study involved 145 final year trainee counsellors that were randomly selected in Faculty of Tarbiyah and Education in Islamic University of Raden Intan Lampung. Generally, the result of the study reveals that most of the trainee counsellors possessed an average or simple level basic counselling competence with the mean ranged from 61 to 80. In addition, none of the respondents acquired the highest competencies with the mean ranged from 81 to 100 which indicates that the majority of the

respondents did not master the competencies completely. However, this study did not report the number of the students for each counselling competency score obtained.

Another study conducted by Alis and colleagues (2017) examined the associations between self-reflection with counselling competencies consisting of (1) performing helping skills; (2) managing the counselling process, and (3) handling challenging counselling situations. There were 100 trainee counsellors from four public universities in Malaysia namely UMT, UPSI, UPM and UM involved in this study selected through the stratified sampling technique. Interestingly, their study findings were slightly different compared to this study with the majority of the respondents which is 65% had high competency level and 35% had moderate competency level, with the mean 263.23. Meanwhile Wan Jaafar (2011) investigated the trainee counsellor competencies through their counselling performance. The respondents consisted of 100 trainee counsellors who underwent counselling internship for 12 weeks. They were chosen through the stratified sampling from three universities in Malaysia namely UPM, UM and UMS. The result is also quite similar to this study with the majority of the trainee counsellor competencies at a moderate level with counselling skills=50.61; counselling knowledge=47.25; interpersonal=49.22; and general performance =49.22 respectively.

According to these findings, it seems that there was a variation in the levels of competencies possessed by trainee counsellors during the supervision. This is related to the fact that most of the researchers have administered different psychometric properties and employed varying competencies cut-off points. For example, other than this study, DePue and Lambie (2014) had also used Counselling Competencies Scale (CCS), whereas Wan Jaafar (2011) adopted the Counsellor Performance Inventory (CPI) where the measurement was implemented through the supervisor's lens of evaluation. Meanwhile, Yaumas and colleagues (2018) used unnamed psychometric properties, and Alis et al., (2017) administered Counsellor Activity Self-Efficacy Scale (CASES) respectively. The measurement tools that were used in both of these studies are based on the counsellor-in-training self- rated evaluation. Despite the different cut-points, there is still a similarity with the past studies in terms of the competency of the trainee counsellors who have gone through the internship and obtained supervision. The majority were at the good and moderate levels and none had been at the lowest or harmful level. Only few trainee counsellors were found to obtain the highest competency level.

In a similar vein, for the second objectives, this study finding indicates that the frequency of supervisions received had a significant association with the two counselling competencies sub-scales namely counselling skills and professional behaviour. This study's findings were parallel with DePue & Lambie (2014) to see the impact of practicum experience for the counselling students towards the empathy level and counselling competency. The outcome from the work by DePue and Lambie (2014) shows that there is an increase in the empathy level and counselling competency among the trainees at the end of the semester, compared to the middle of the semester after they have been supervised throughout the practicum. Other than that, the study finding is also consistent with the study by Swank (2014) that attempts to compare the level of counselling competency evaluation between the supervisor and the counselling practicum students. There are two evaluations which is in the middle of the semester and the

end of the semester, using Counselling Competencies Scale (CCS). The finding from Swank (2014) shows that there is an addition to the competency score at the end of the semester compared to the mid-semester, based on the evaluations given by the supervisor and the counselling students. Next, the finding also supports the finding from Alis et al., (2017) where there is a connection between self-reflection and competency among the trainee counsellors who are being supervised. The finding from Alis and colleagues (2017) shows that the competency level self-reflection ability of the trainee counsellors has increased after they have gained the experience being in the counselling session a few times in the supervision.

Based on the second objective findings, it proves that there has been an increase in the competency of the trainee counsellors in line with the increased frequency of supervisions undertaken. This is due to the fact that the data in this study and in previous studies such as Yaumas and colleagues (2018), DePue and Lambie (2014), Swank (2014), and Alis and fellows, (2017) were gathered at the end of the internship after the trainee counsellors had dealt with a lot of issues in the supervision and having undergone the supervision process with their respective supervisor. Normally, early on in the training, whether in the internship or practicum, trainee counsellors will have to confront a lot of challenges like anxiety and fear (Bernard & Goodyear, 2019; Kurtylmaz, 2015; Tsai, 2015), certain difficulties such as being unclear about their role (Babcock, 2014; Olk & Friedlander, 1992) and various issues in supervision relationships (Bernard & Goodyear, 2019; Falender, 2014; Ladany & Malouf, 2010; Mohd Ali et al., 2020). However, multiple studies have also proven that the supervision process can also increase the level of competence of trainee counsellors in terms of the increased skills in carrying out the session, increasing the level of awareness and self-efficacy and it is related positively with the satisfaction of the trainee counsellors (Subarimaniam et al. (2020); Watkins, 2020); higher empathy level (DePue & Lambie, 2014); and better self-reflection (Alis et al., 2017; Arokianathan et al., 2020; Zakaria, 2013).

This is due to the fact that in the internship training, every trainee counsellor will be provided with a counselling lecturer from their university, as their main supervisor (Mohd Ali et al., 2020) and a site supervisor as the second supervisor throughout the internship training period. During the supervision, the supervisor is responsible in assisting the development of the trainee counsellors such as making observation, evaluation also giving feedback towards the skills, theory, intervention and many other competency components that need to be mastered by trainee counsellors when undergoing the counselling session (Bernard & Goodyear, 2019; Kabir, 2017; Falender, 2014¸; Malouf & Ladany, 2010). Other than that, the supervisor will transfer the competency needed by the trainee counsellors to ensure that they are able to execute the counselling session effectively.

At the same time, trainee counsellors have the opportunity to discuss any issues that clients are not able to handle, or any shortcomings or difficulties with the supervisor during the supervision. Indirectly, all the activities that happen in the supervision process are those that will, in the end, contribute to the increased level of competency for the trainee counsellors. Therefore, the supervision process is pivotal and significant in developing the competency of trainee counsellors during internship/practicum (Arifin et al., 2022; Bernard & Goodyear,

2019; DePue & Lambie, 2014; Swank et al., 2012). In addition, their competencies during an internship will bring positive results to counselling services specifically toward clients (Spielberger, 2020), whereas the lack of supervision will expose adverse effects and be harmful to them (Wheeler & Richards, 2007). As supported by Bernard & Goodyear (2019) supervision is the "gatekeeper" in the counselling profession that preserves the welfare of the clients.

Limitation and Recommendation

In this study, mere attention has been given to the level of competency of the trainee counsellors in Malaysian public universities. To enhance counselling training in Malaysia, this study recommends that it is carried out as well at private universities with full accreditation from Board of Counsellors Malaysia. Other than that, future researchers are also recommended to look into other factors that may influence competency such as personality, experience as a client self-exposure, transference, satisfaction and expectation towards the supervision process and others contributing to the trainee counsellors' competency in the supervision process.

Next, in this study, data were only gathered once, which is at the end of the semester. Thus, in our next study, it is proposed that the data are to be gathered twice and conducted as a longitudinal study, which is the middle of the internship semester and at the end of the internship semester. By conducting this type of study, the trainee counsellors' mastery level can be more precisely determined.

Conclusion

There is a consistent, albeit subtle, reminder throughout this current study that the supervision process is the mainstay that aids the development of the professional identity of every trainee counsellor through their increased competency. Being a competent counsellor does not only mean mastering the skills *per se*, but also encompassing the supposed components of competency. The results of this study have provided a general overview of the counselling skills of counsellor-in-training in Malaysia. The result shows that most of the respondents meet the expectations of counselling skills, professional behaviour, professional disposition, and overall competencies at the fourth level. It is also revealed that trainee counsellors in Malaysia have the prerequisites to become a competent counsellor. Additionally, there is a significant mention of the implications for trainee counsellor education, and supervision practice. This is because the frequency of supervisions appears to be one of the important factors in the development of trainees' counsellor competencies. With these given circumstances, the supervisors need to carry out sufficient frequency of supervisions as dictated in the Board of Counsellors Malaysia's guideline. It is fundamental for the trainee counsellors to master the theory, concepts, and application of counselling to provide the best counselling sessions. Thus, as building trainee counsellor competence is a challenge for the supervisor, concerted efforts towards the evaluation, enrichment and consolidation towards a standard counselling competency that need to be achieved are vital to be executed continuously in the counsellor education and training programmes.

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Pandemic-Led Challenges for Rural Students in Bangladesh

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Abstract

The COVID-19 pandemic had has a impact on education in Bangladesh, especially for rural areas students. This research was conducted in the South Bali Para village of Trishal Upazila in Mymensingh and focused to investigate the difficulties faced by rural students in terms of accessing and adjusting to online education during the pandemic. A sample of 300 students from primary to higher secondary levels was surveyed, and empirical research revealed that economic hardship and lack of access to online education were the primary concerns for rural students. This contrasts with urban students, who were primarily affected by mental health issues. According to the research findings, more than 60% of households in rural areas lacked internet access or smartphones, despite the fact that approximately 70% of primary, lower, and higher secondary students resided in these regions. Efforts to provide remote learning through methods such as television or multimedia classrooms in remote areas did not effectively support rural students in their online education during the pandemic. Therefore, the study highlights the socioeconomic challenges and costs of pandemic-led online education in rural Bangladesh, including the increased risk of dropouts and child marriages. The findings emphasize the urgent need for an inclusive and accessible strategy for remote learning that specifically addresses the needs of the poorest and most vulnerable students in Bangladesh.

Keywords: accessibility, Bangladesh, COVID-19, pandemic, rural education, online education

COVID-19 has posed innumerable challenges to the education sector all over the world. Educational institutions across the globe experienced an unprecedented transition from face-to-face to various forms of online education (Adedoyin & Soykan, 2020). Various challenges for the education sector include the concerns of quality, equality, accessibility, the learners' mental health, the capacity and skills of instructors, and consensus among the stakeholders. Nationwide closure of schools in more than 100 countries made it impossible for 1 in 5 learners to attend schools, adversely affecting over 800 million learners worldwide, as estimated by UNESCO (United Nations Educational, Scientific and Cultural Organization) (Education, 2020). Due to the sudden disruption, regular in-person educational activities turned virtual overnight with inadequate support, facilities, and planning. Neither the takers nor the education providers were prepared to accept the shift to online education but had to adopt it eventually. Research Data shows that around 38 million students were affected due to the COVID-19-related closure in Bangladesh (Bank, 2021).

The COVID-19 pandemic has resulted in online teaching and learning becoming the new norm for education globally (Xie et al., 2020). However, the challenges of distance, scale, and personalized teaching and learning in online mode have not been adequately addressed, leading to failures in compensating for traditional educational practices. Additionally, pre-existing social and digital divides have led to unequal access to digital technologies and resources, exacerbating existing inequalities and making marginalized groups more vulnerable. Girls, students with special needs, and those from low-income countries are at the highest risk of being affected (Mathrani et al., 2022). Implementing remote education has brought various logistical, technical, financial, and social issues to light. These issues include unequal availability of ICT infrastructure, inadequate Internet, and power resources, as well as skill deficiencies in using distance-learning platforms (Kozimor, 2020).

Moreover, the pandemic has placed an extra financial strain on households and resulted in a decrease of progress made in the educational sector. Projections even suggest that students from countries with less developed infrastructure may experience a regression, undoing the progress made over the past few decades (Amir et al., 2020). The psychological impact of social isolation, confinement, and lack of physical exercise, reduced access to nutrition and school meals is also a significant concern (Mathrani et al., 2022). The digital divide between rural and urban areas is still significant, with underprivileged communities lagging behind. The exclusionary nature of digital access and differences in the penetration of ICT assets are further hindering progress toward equal access to education (Aziz et al., 2020). A survey conducted among class nine students in 2020 who were eligible to receive the government's poverty-targeted stipends in Dhaka and Mymensingh divisions identified that more than 50 percent of the respondents do not have access to television to participate in distance learning. Less than 50 percent of students watch television for remote learning those who have access to television (Biswas et al., 2020). Additionailly, Mymensingh division has the lowest access to electricity, as 23% of households experienced daily shortage of electricity, and it ranks third in terms of the highest illiteracy rate, standing at 43.83%. These factors are likely contributing to a relatively lower levels of digital access and skills in Mymensingh division (Shadat et al., 2020).

It's obvious that students in rural areas have had a hard time adjusting to online learning during the pandemic. Despite the shift to virtual education, there was no clear plan or support system in place to ensure a successful transition. Developing countries like Bangladesh, encounter challenges in establishing the necessary infrastructure and resources for online education, which sets them apart from higher education institutions across the globe (Shrestha et al., 2022). This has resulted in even greater challenges for students who are already disadvantaged by poverty and their remote location. To better understand the difficulties faced by impoverished and vulnerable students in rural parts of Bangladesh, this study investigates the obstacles they encountered when trying to access, learn and adapt to online education during the COVID-19 outbreak. Moreover, the study will contribute to the existing literature and provide a basis for future research. The research findings will help policymakers and education providers to design and implement effective online education strategies that address the challenges faced by rural students during the pandemic. In doing so, this study will contribute to the broader goal of enhancing education quality and accessibility in Bangladesh, particularly in rural areas and promoting the implementation of the Sustainable Development Goals (SDGs) related to education.

This paper provides a brief overview and analysis of online education during the pandemic in Bangladesh. The first section will provide a literature review of the challenges brought by the COVID-19 pandemic to the education sector, the challenges of online education, and the digital divide in Bangladesh and around the world. Then we present our findings and data analysis from the study site, Balipara, located at Trishal Thana of Mymensigh district. The third section presents the study's findings and discussion, highlighting the challenges faced by rural students during the pandemic. Finally, the paper is concluded with recommendations for policymakers and education providers.

Literature Review

The shutdown of schools due to the COVID-19 pandemic has brought significant disruptions to education worldwide, and Bangladesh is not an exception. The pandemic has posed a many-sided challenge for the education sector in the country that was already struggling to minimize the gap between urban and rural, elites and the poor. COVID-19 lockdown and closure of schools have caused a massive shock to the students and teachers who had to adapt to online teaching-learning. The closure of schools had very high social and economic costs for the people as well as the system. Instances of child-marriage, early motherhood, and child-labor increased following the long-term school closure (Makino et al., 2021). As the UNESCO (UNESCO-IEA, 2022) report shows, the disruption in education has caused many other difficulties, including interruption of learning, poor nutrition of the school students, stress and mental health hazard, anxiety of the parents, social isolation, compromised childcare, technological challenges, high economic costs, and increased dropout rates.

The Ministry of Education reports that Bangladesh has approximately 38.6 million students across all education levels. The country presently accommodates approximately 21.6 million elementary and primary school students, thirteen million secondary school students, and four

million university and college students. The majority of secondary schools, roughly seventy-six percent, are in rural areas, and a significant proportion of primary school children, about sixty percent, attend government-run schools, which are primarily situated in rural locations. (Ministry of Education, 2022).

Before the outbreak of COVID-19 in Bangladesh, the concept of online education or blended learning was not widely recognized or implemented in the country. The country's education system did not have any mainstream online-based teaching methods, as reported by (Islam & Selim, 2006). Access to technology and connectivity is one of the most significant challenges for rural students in Bangladesh. Multimedia-based education or online learning could not be established due to various challenges, including a lack of infrastructure, connectivity, and the necessary skills of educators (Islam & Inan, 2021).

The majority of students from marginalized and rural areas belong to weaker socioeconomic backgrounds. They are not able to access and continue remote learning opportunities through television, radio, the Internet, smartphones, etc. do not have access to these devices. Amidst these difficulties, it is also important to note that the schools are not only places to take formal education but also place to participate in extra curriculum activities, which got affected terribly (Chowdhury, 2020). A report conducted jointly by the Bangladesh Bureau of Statistics (BBS, 2021) and UNICEF has revealed the immense impact of school closures, particularly on the most vulnerable children who have no opportunity to access to the Internet, television and supportive devices like computers or smartphones at home. Rural children have been particularly affected, with only 15.9% participating in remote learning compared to 28.7% of urban children. Geographical disparities are also significant, with Khulna and Dhaka having the highest percentage of students participating in remote classes, while Mymensingh has the lowest. Primary school children have been affected, with only 13.1% participating in remote classes compared to 20.3% and 23.7% of lower and upper secondary students, respectively.

With the emergence of COVID-19, educational institutions were forced to adopt alternative modes of teaching and learning. Despite the challenges posed by inadequate infrastructure and limited skills among educators, there have been many efforts to overcome these obstacles and provide online education to a larger audience in Bangladesh. The government has made many attempts to improve the required infrastructure, such as expanding internet access and providing training for teachers to adapt to the digital environment (Islam et al., 2021). Since the middle of March 2021, the government has taken some initiatives, like providing distance learning through television. Various government ministries and departments, such as the Ministry of Education, the Ministry of Primary and Mass Education, the Ministry of Information Technology and Access to Information, the ICT division of the government, and so forth, decided to provide online-based education to reduce the educational crisis. The programs were named "Ghore Boshe Shikhi" meaning is "study at home" and "Amar Ghore Amar School" meaning is my "home is my school", respectively, and aimed to broadcast pre-recorded lessons on various subjects. However, a mere 56% of households in Bangladesh possess a television, leaving nearly half of the learners without access. In order to reach the marginalized 44% of the population, UNESCO collaborated with the government to implement

a comprehensive distance learning initiative for primary education based on radio broadcasts. Additionally, recorded lessons were uploaded on YouTube, and a dedicated portal was created specifically for the "Ghore Boshe Shikhi" program (Mousumi, 2023). But there have been several questions raised like: maintaining or providing the qualities education, proper engagement of the students, accessibility of Internet and television, etc. The government takes initiatives to provide online-based and telecast education. But the fact that 50% of the nation's households do not have a television set means that many people have been kept outside its ambit (Khan et al., 2021).

Developed countries prioritize high-speed internet access, but in the case of developing countries like Bangladesh, physical access is considered more important. Scholars emphasize focusing on social, psychological and cultural barriers to digital inclusion, which include digital literacy, digital skills, and reluctance to use digital tools. In addition, social inclusion concerns such as inequality, gender disparity, and citizen rights are not fully considered in National ICT Policy (Aziz, 2020).

Apart from access to technology and connectivity, rural students in Bangladesh also face challenges due to the lack of digital literacy and digital divinity. Access to technology alone cannot ensure digital literacy; having the knowledge and skills to use technology effectively is necessary. However, the lack of access and skills is prominent in rural areas of Bangladesh, which is contributing to a growing digital divide (Waughen, 2015). Many students are not familiar with online learning platforms, and they lack the necessary skills to navigate these platforms effectively. A cross-sectional survey was conducted (Badiuzzaman et al., 2021) to collect quantitative data and qualitative information on the digital divide experienced by Bangladeshi students during the pandemic. The study found that despite having physical access to information and communication technology (ICT), only 32.5% of students could attend online classes seamlessly. Data prices and poor network infrastructure were identified as significant barriers preventing students from participating in online learning activities. The study suggests that stakeholders, including the Bangladesh government and educational institutions, should take action to reduce internet costs and improve the mobile network infrastructure in rural areas. Additionally, parents and teachers should take care of students' digital well-being. World Bank research report (Haven et al., 2021) on Bangladesh shows that the digital divide between rich and poor households has been a persistent phenomenon. Based on a survey among school students aged between 5 to 15, it highlights that less than 50 percent have access to the medium to join virtual learning or online education. Since Bangladesh had to go for a complete online education during the first two waves of COVID-19, it was totally dependent on ICT. Many rural students in Bangladesh come from low-income families, and their parents may not have the necessary knowledge and skills to support their education. Studies (M. A. Islam et al., 2020; S. M. D.-U. Islam et al., 2020; Mamun et al., 2020) suggest that many students face challenges due to the lack of support from their families. The study also reported that many parents were unable to provide their children with the necessary devices and internet connectivity due to financial constraints. Online education is not only challenging for students but also for teachers.

Technology-based teaching becomes more complicated when the instructors do not possess the required skills to make the teaching-learning process efficient, like interactors are unfamiliar with using an online platform such as Zoom and google meet etc. (Yeung et al., 2012). Online classes were found to be less effective than traditional classes since students and teachers alike lacked technological expertise. Communication gap and long length of classes posed a major challenge for the instructors (Mahmud et al., 2021). Hossain and colleagues (2022) suggested that improving technical infrastructure and pedagogical contents, as well as resolving financial issues, is crucial for making online education/distance learning more effective and reducing the impact of a pandemic on the education sector in Bangladesh.

Online learning can also have an impact on the mental health of students. A study conducted by Sayeed and colleagues (2020) aimed to investigate the impact of the COVID-19 pandemic on the mental health of Bangladeshi students and their perceptions towards the pandemic. A web-based survey was conducted among 589 students in Bangladesh between April 29 and May 07, 2020. The survey collected data on demographic status, perceptions towards COVID-19, and mental health symptoms using the Depression, Anxiety and Stress Scale. The results showed that a high prevalence of depression, anxiety, and stress symptoms was reported among the students. The study also found that student's age, gender, income, location of residence, and family size are associated with mental health difficulties. Negative perceptions towards the pandemic were significantly associated with poor mental outcomes.

Methodology

The research design for this study was a cross-sectional survey that aimed to investigate the difficulties that primary to higher secondary level students in the South Bali Para village, Trishal Upazila in Mymensingh, while trying to keep up with their virtual classes during the COVID-19 school lockdown. The sample size consisted of 300 students, including 170 boys and 130 girls, ranging in age from 7 to 20 years old. The study population mainly comprised students from economically weaker sections and lower-middle-class families, with many of their families relying on agriculture and agro-based incomes for their livelihood. Survey research is generally the best option for investigating a group of people who are too large to study in depth through direct observation (Babbie, 2007). The cross-sectional survey design allowed for data collection at a single point in time, providing a snapshot of the various obstacles faced by the students while doing online classes during the pandemic. The survey approach provided a standardized way of collecting data and allowed for comparisons across different subgroups of students. Additionally, the survey design enabled the researchers to efficiently collect data from a large sample of students, thereby increasing the generalizability of the findings to the larger population of students in the village.
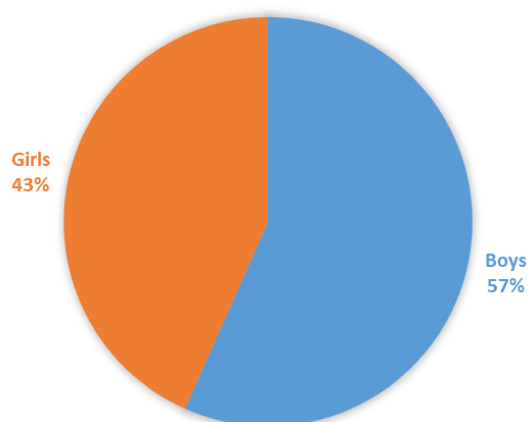
Data Collection

The data collection process utilized in this study was a mixed methods approach, including qualitative and quantitative data collection and analysis techniques. Social researchers often deal with complicated issues, and these issues cannot be adequately addressed by using only

quantitative or qualitative methods. To gain a comprehensive understanding of the diverse issues confronted by rural students, this study adopted a mixed-method approach that incorporates both these methods (Creswell, 2009). Triangulation, a methodological process that integrates both techniques, was used to achieve the research objectives. Babbie (2007) believed triangulation was an excellent technique as it can minimize certain weaknesses of each research method. Qualitative data was collected through interviews with the students to obtain in-depth and rich descriptions of their experiences and perspectives. On the other hand, quantitative data was collected through a survey to gather more structured and numerical data on the student's attitudes and behaviors. The use of both techniques and the triangulation process allowed for a more comprehensive understanding of the research question, providing a complete picture of the topic under investigation.

Sample Selection

For this study, a convenience sampling technique was employed to select a sample of 300 students from various schools in the South Bali Para village to serve as respondents. Convenience sampling method relies on the availability of samples, meaning whoever is willing to answer questions are selected for the study (Babbie, 2007; Bernard, 1988). Because the study was carried out during the pandemic, a more non-risky sampling method such as simple random sampling could not be utilized. The schools in the study area were closed, and as a result, getting a list of students from school authorities to run a random sampling was not feasible at the time of data collection. The study required a certain number of respondents who faced pandemic induced challenges, so the convenience sampling technique was adapted. As shown in Figure 1, the composition of boys and girls surveyed was 57% and 43%, respectively. The students were selected based on their availability and willingness to participate in the study. The sample was equally composed of boys and girls, representing the gender distribution of the student population in the village. Additionally, the sample was representative of the age range of the students in the village. This sampling method was chosen due to its practicality and convenience in terms of accessibility to the target population, allowing for data collection in a timely and cost-effective manner. However, it is essential to note that convenience sampling may introduce some degree of bias in the sample selection process, and therefore, the generalizability of the findings may be limited.

Figure 1.

Composition of Boys and Girls Surveyed

Data Analysis

The data collected in this study were analyzed using both qualitative and quantitative techniques. Qualitative data collected through interviews were analyzed using thematic analysis, whereby the data was conceptualized, classified, and relationships were built between the concepts and numbers. The emerging themes were then used to describe and interpret the participants' experiences and perspectives. On the other hand, quantitative data collected through the survey were analyzed using descriptive statistics to summarise and present the data in tables and graphs. Triangulation was employed as a methodological process to integrate the qualitative and quantitative data and to build a complete picture of the challenges faced by students in rural areas during the COVID-19 pandemic. This allowed for a deeper understanding of the socioeconomic challenges and costs of pandemic-led online education in rural Bangladesh and helped to identify issues related to accessibility, approaches, and adaptability of online learning during the COVID-19 pandemic. The use of triangulation and qualitative and quantitative data analysis techniques contributed to the comprehensiveness of the study's findings and increased the validity and reliability of the results.

Findings and Discussion

The objectives of the study were to find out the challenges faced by students in terms of accessing, learning, and adapting to online education during the COVID-19 outbreak, contribute to the existing literature and serve as a basis for future investigations, and help policymakers and educators in developing and implementing effective online education initiatives to address the obstacles faced by rural students during the pandemic. The study achieved its objectives using sample data of Primary and Higher Secondary school students from South Bali Para village, Trishal Upazila in Mymensingh. A mixed method approach and a convenience sampling technique was applied to collect and analyze the data. The study shows that most of the students come from low-income families, with a majority of them being dependent on agriculture and agro-based labor activities. The monthly income of these families

is also relatively low, which makes it difficult for them to afford the devices and internet connectivity needed for online learning. The study found that only a small percentage of students had access to the Internet and owned devices such as computers or laptops to attend online classes.

Family Background and Socioeconomic Status of the Students

Most of the students belong to lower-class families. There are 44.4% of respondents' fathers who do agricultural work, 20% of businessmen, 8.9% have businesses, 3% are fully unempolyed, 2.2% are teachers, 2% are carpenters, 3% live abroad, and 16% engaged in other professions as shown in Figure 2. Many families depend on agriculture and agro-based labor activities. The maximum family depends on the income of their father. There are, 86.7% of respondents' fathers earn money for their family and the rest, 13.3% of respondents' sister-brothers earn for their family instead of their father. The profession of the respondent's mother is not very diverse. There are 97% of respondents' mothers are housewives, and the other 13% of respondents' mothers work outside.

Figure 2
*The Profession of the Parents in Percentage*
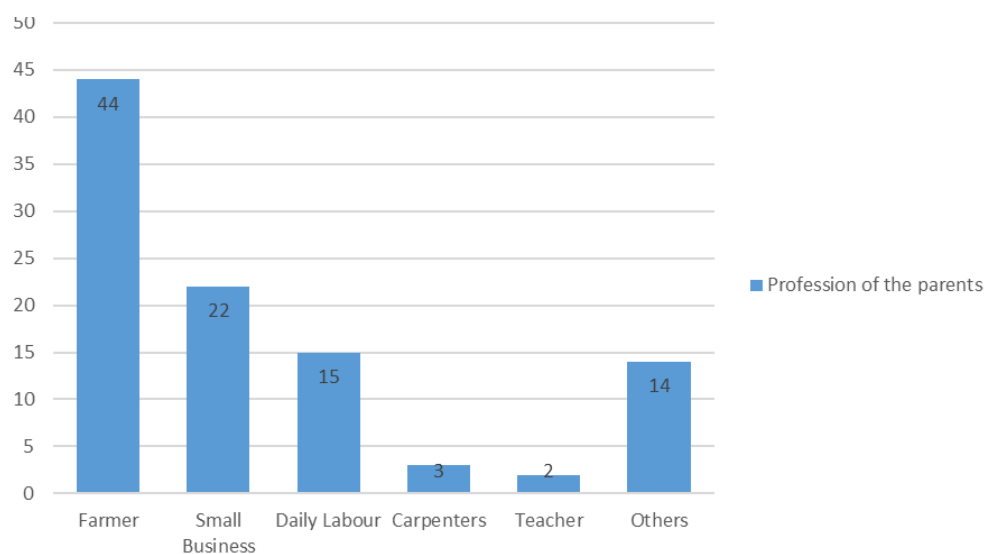
Monthly Income of the Respondent's Family

When we paid attention to the monthly income of the student's families, it was quite depressing. Figure 3 shows that 87.20% of the respondent's family's monthly income is only around 80 to 100 USD. Only 6.40% of respondents' families' income is 120 to 150 USD. Only 2.20% of respondents' families earn 200 to 250 USD per month. 2.10% of families have a monthly income of 250 to 300 USD and 300 to 350 USD, respectively. The maximum income of a family is 350 USD per month, with which they struggle to maintain a decent life.

Figure 3.

Monthly Income of the Family in USD
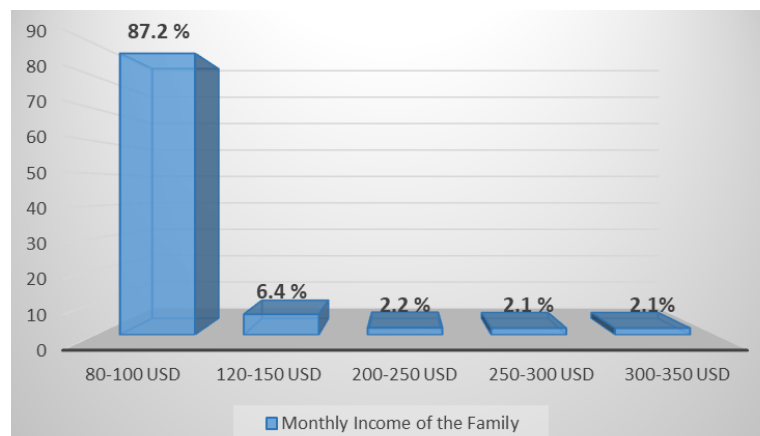
**Resources or Equipment Available in the Students' Households for Their Studies**

Our study reveals that the majority of students residing in rural areas lacked access to broadband Internet in their homes. Figure 4 illustrates scenario of resources or equipments available in the house of the students; only one percent of students having their own computer at home and none of them possessing a webcam, even among those who owned a computer. Additionally, a mere five percent of students had a broadband internet connection. During interviews with these students, we discovered that they relied on smartphone data packages to connect to the Internet, which presented challenges in terms of affordability and smartphone accessibility. It is worth noting that access to the Internet was only possible through mobile data packages, making these students heavily dependent on smartphones for online connectivity. However, it is important to note that only 16% of students had their own smartphones and headphones. When asked if they could afford to purchase a new smartphone during this period, 73.3 percent responded with "No" (as illustrated in Figure 5). On a positive note, 26% of students had chairs and tables in their homes that they could utilize for studying. We also inquired whether they had a quiet space at home for attending online classes; unfortunately, only 14 percent of students responded affirmatively.

Figure 4

The Study Tools/Devices that the Students Had in Their Home
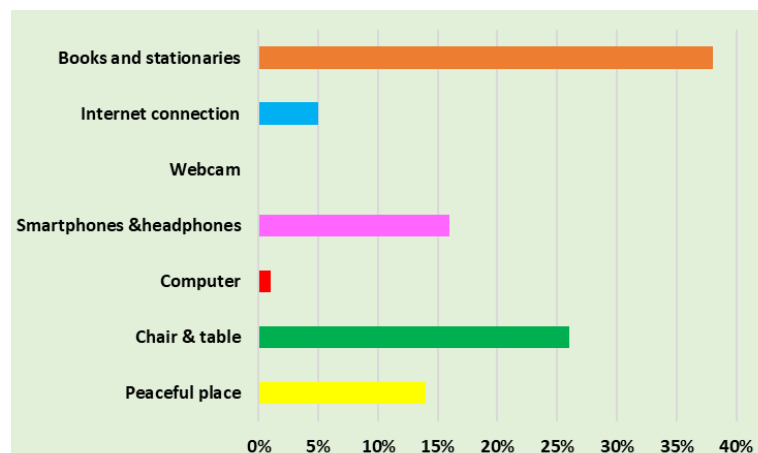
Figure 5

Percentage of Students Who Could Afford to Buy Smartphones during the COVID-19 Period
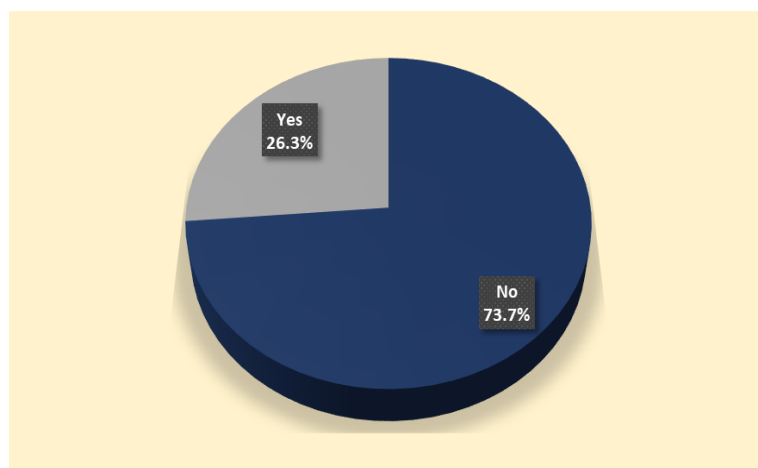
Most Used Device for Continuing Online-Based Classes and the Number of Devices Available in the Family

During the COVID-19 lockdown, students depended on various devices to continue their online education. When considering the distribution of device usage, a majority of students, comprising 81% of the total, relied on smartphones or tablets to attend online classes though their parents used those devices as they did not own the devices, shown in Figure 6. Only 16% of students had access to a laptop or computer. Surprisingly, 3% of students had no access to any type of device to join their classes. Among the respondents' families, the majority (85%) owned one smartphone, while 12% had two smartphones, and the remaining 3% had three smartphones. During our interviews, we discovered that among the 85% of students whose families owned at least one smartphone, it was predominantly the breadwinner, typically the father, who owned it.

Figure 6
Different Devices Used in Percentage
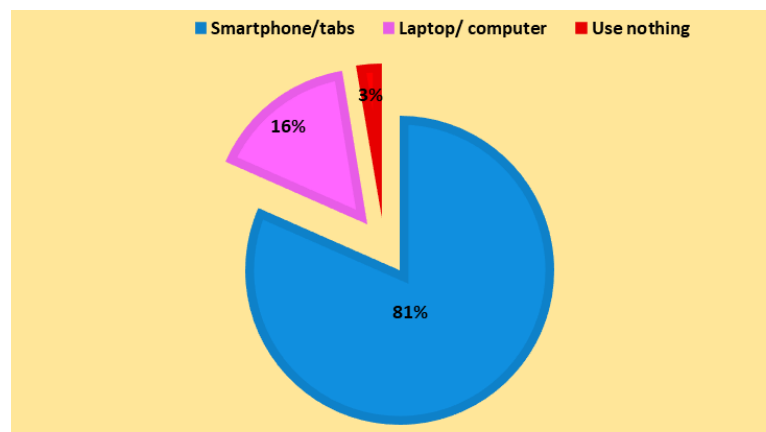
Classification of Owners and Dependency Percentage for Various Devices Used for Online Classes

Regarding the classification of owners and the percentage of dependency on devices among these students, our findings indicate that 70.6% of students shared their phones with their siblings to attend online classes, while 29.4% did not share their phones with their siblings. In terms of device ownership, 60.5% of respondents used their parents' phones, 23.7% utilized their siblings' phones, 10.5% had their own personal phones, and an additional 5.25% relied on phones borrowed from friends and relatives for online classes, as illustrated in Figure 7. It's worth emphasizing that not all students may have personally possessed these devices; some could have been shared with neighbors or borrowed from various sources, as indicated in Figure 7. However, this shared device arrangement at times presented difficulties for students, leading to occasional class absences due to conflicting schedules with their siblings or friends. This underscores the restrictions and interruptions that can emerge when multiple individuals depend on a single device for their educational requirements.

Figure 7
Classification of Owners and the Percentage Dependency for Devices
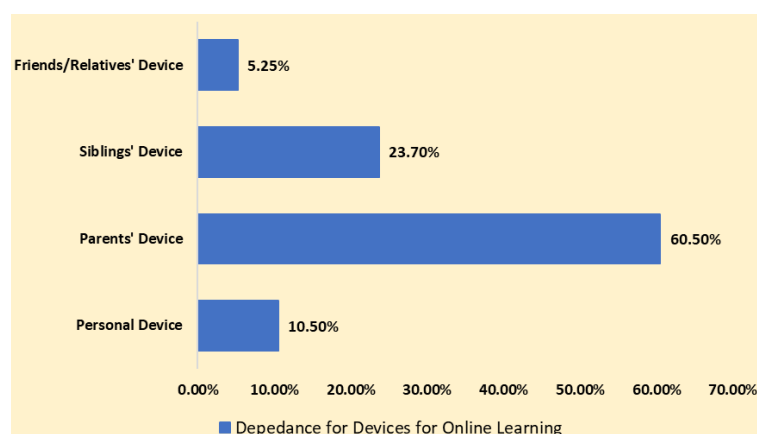
Educational Costs during and after the COVID-19

The cost of education, including school and transportation fees, became an additional burden during these challenging times. A significant number of students confirmed that school fees increased following the COVID-19 lockdown. However, it is concerning that most students indicated that their respective school authorities did not reduce the fees during the pandemic, which was crucial for ensuring continued education during the lockdown. (Table 1) Only 38% of students agreed that the school authorities waived their fees, and a mere 32% confirmed that the authorities had taken the initiative to facilitate an easier process for fee payment (load or through instalments). These statistics underscore the financial challenges faced by students and their families and the limited support provided by educational institutions in addressing these difficulties.

Table 1
Educational Costs While and After COVID-19

Topic	Student's opinions & percentage	
	Agree/yes	Disagree/no
School fees increased after COVID 19	70%	30%
School authorities decreased school fees during COVID-19	17%	83%
The school authority waived school fees during COVID-19	38%	62%
School authorities make it easier to pay the school fees of the student through a loan system or other	32%	68%

**Monthly Internet Cost of the Respondents**

Figure 8 illustrates the monthly internet costs reported by the respondents. The first column reveals that 18.90% of students can afford to allocate around 2.5 USD (Tk. 200) for purchasing internet services. Furthermore, 64.90% of students could spend between 2.5 to 6 USD (Tk. 200-500) per month, while 5.40% of students spent 7-8 USD (Tk. 600-700). Additionally, 8.10% of students allocated 10-12 USD (Tk. 800-1000), and 2.70% spent more than more than 12 USD (Tk. 1000) on internet expenses each month.

To actively participate in online learning, a minimum expenditure of 12 to 15 USD per month was required for internet access. However, it was evident that most students could not meet this requirement due to their family's monthly income being only 80-100 USD. For rural families facing economic hardships, allocating 10% of their income solely to purchasing internet services presented a difficult decision. This data highlights students and their families financial constraints, which further hinder their access to quality online education.

Figure 8

Monthly Internet Cost of the Respondents
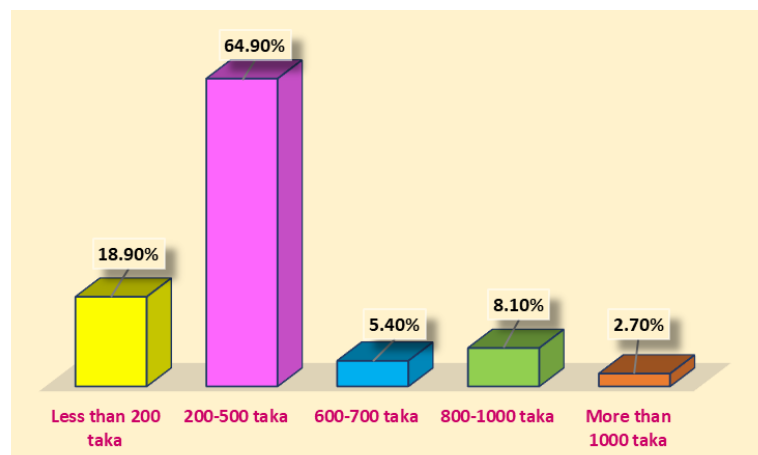

The Price of the Devices Used for Online Classes

When it came to acquiring a new device for attending online classes, 66% of the students had spent approximately 115 USD (Tk. 10,000), while 28% of students had invested between 115 and 225 USD (Tk. 10,000-20,000). Only 6% of students had spent 250 to 350 USD (Tk.20,000-30,000) on their devices.

Additionally, it is worth noting that a significant percentage of students in rural Bangladesh, at least 30%, encountered difficulties in using various apps on their devices, such as Zoom, Messenger, WhatsApp, and Google Meet. This information, as depicted in Figure 9, highlights the challenges faced by students in effectively utilizing the required online communication and collaboration tools.

Figure 9

The Prices of the User Devices
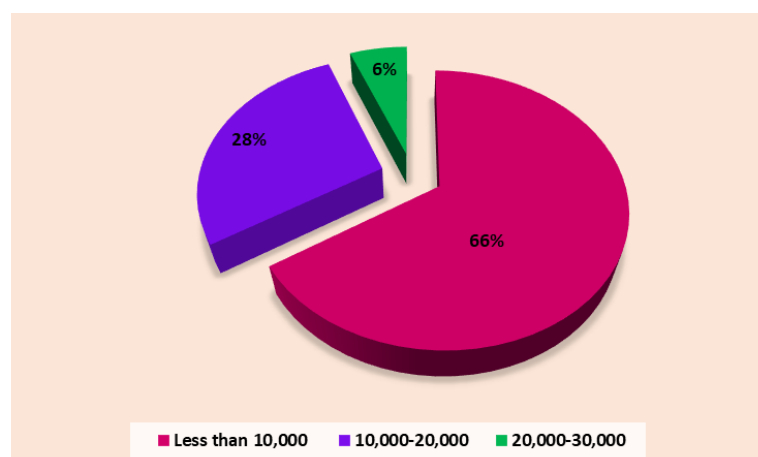
As a consequence of the high cost of maintaining online learning, there has been a drastic dropout in schools. The sample size of our study shows that 21 percent of the respondents are no more continuing their education (Figure 10).

Figure 10
*School Going/Still Studying Student Percentages*
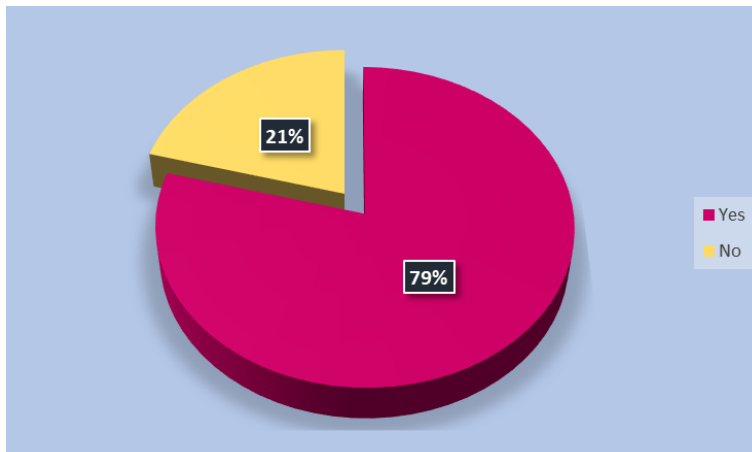
Present Conditions of the Dropout Students

A significant number of students have become engaged in various professions after dropping out of school or college. Among the respondents, 50% reported being employed and contributing their earnings to their families. Only 1% of the respondents were unemployed. Additionally, 20% of respondents assisted with their family's business, while 29% were involved in household work and farming activities.

Following the outbreak of COVID-19, a concerning trend emerged where a large percentage of female students faced familial pressure to get married, reaching a staggering 90%. Among the 21% of students who dropped out of school, 50% dropped out during grade seven, 40% dropped out during grade eight, and the remaining 10% dropped out during class nine. These details can be seen in Figures 11a and 11b.

Figures 11a & 11b
a) The Present Condition of Dropout Students, b) The Last Academic Status of the Respondents
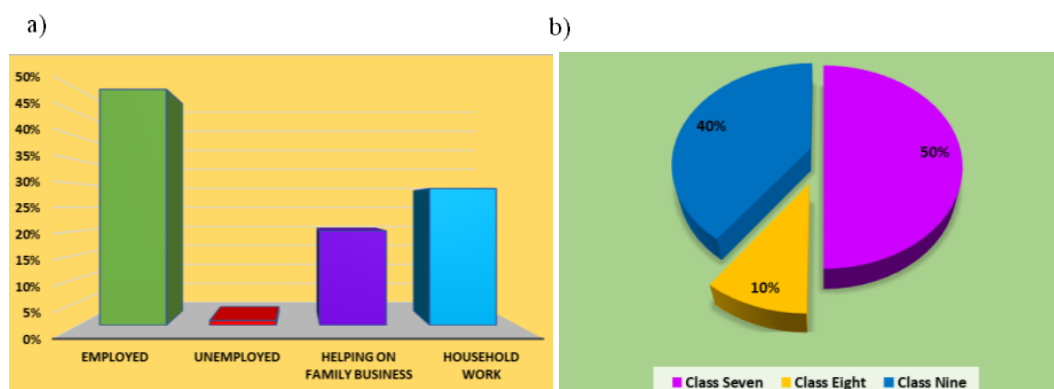
**The Reason for the Discontinuation of the Study/Dropout of the Respondents**

According to our findings, a significant number of students have halted their studies due to the economic crisis. Continuing their education online posed challenges as it necessitated new arrangements. Moreover, the various incentives, moral support, and motivation they used to receive during offline classes were no longer available. As shown in Figure 13, approximately 32% of students were unable to continue their studies due to the financial difficulties faced by their families. Additionally, 28% discontinued their education due to family pressure. Another 24% of students were unable to continue their studies online due to the impact of the pandemic. Furthermore, 16% of students discontinued their education due to the pressure from their families to get married. This data highlights the factors contributing to the discontinuation of studies among students during thee pandemic of COVID-19 and aftermath.

Figure 13
Study Stop/Dropout Reasons of the Respondents
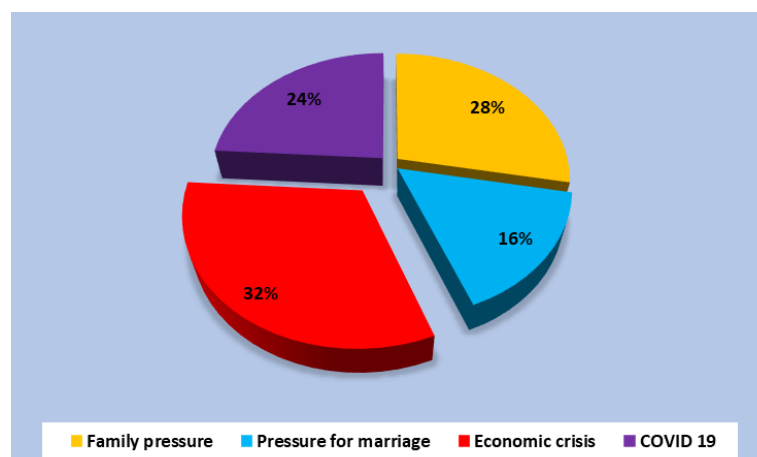
Rural families often faced financial constraints exacerbated by the pandemic, making it challenging to afford the tools and resources required for remote learning. In our final analysis, it was revealed that the students in rural areas have faced major challenges due to the economic hardship in opposition to the crisis of mental health and stress of the urban students in Bangladesh. This is not to say that the rural students were not facing stress and mental health issues. As illustrated in Figure 14, 43% of students responded that they felt stress and had gone through depression when their institutions are closed. The financial difficulties resulting from the pandemic heightened the likelihood of rural students discontinuing their education in order to support their families financially or getting married at an early age (Mahmud et al., 2021), as indicated 32% under economic crisis, 28% under gone family pressure and 16% married and discontinued the study which is portrayed by the data presented in Figure 13.

Figure 14

Mental Health Conditions of the Respondents after School Closed
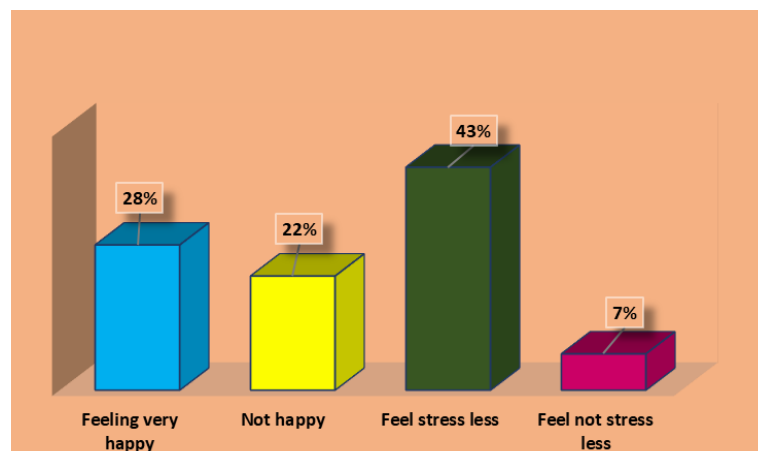
Most of the students depended on smartphones or tabs to continue their education. The cost of purchasing these devices and paying for internet connectivity was also found to be a major challenge for these low-income families (Mahmud et al., 2021). Additionally, the combination of network connectivity issues in rural areas and the high cost of data packages further exacerbated the situation, preventing numerous students from participating in online classes during the COVID-19 pandemic. A recent report from a UK-based cable company highlighted that, among the three South Asian countries – India, Bangladesh, and Sri Lanka, Bangladesh had the highest mobile data package rates. In specific terms, Bangladesh charged the most for one gigabyte of mobile data at $0.99, while India's rate for the same amount was significantly lower at $0.26 (Jasim and Sajid, 2020). As a result, a significant number of students had to drop out of school or discontinue their education. The study also found that education was discontinued mainly due to economic hardship, family pressure, and the difficulties of continuing online education. Family pressure, especially for female students, to get married was also found to be high. The results of the study call for policy interventions to address the economic, social, and technological barriers rural students face in accessing education. The government needs to take immediate measures to improve the internet connectivity infrastructure, provide students with low-cost devices, and ensure that schools and teachers are equipped to deliver online education effectively.

During the COVID-19 pandemic, after recognizing the need for a response to mitigate the pandemic's educational disruptions, policymakers quickly embraced the idea of transitioning to online platforms for educational activities (Wadud, 2020). However, the pandemic compelled a shift, making online platforms the primary means of conducting classes, accommodating a large number of students (Mishra et al., 2020). Bangladesh, too, initiated efforts to facilitate online classes to sustain education without in-person interactions (Shivakumara, 2020). Many academic institutions in the country have adopted the establishment of academic portals, enabling teachers to create their courses online (Chowdhury, 2020). But many of the rural area based educational institutes still poses the lacking of facilities and instromanization.

Amid the COVID-19 pandemic, the uncertainties and emotional distress have had a detrimental impact on the mental well-being of students, parents, and educators. This impact has given rise to psychosocial challenges during the outbreaks and their aftermath (Mopme, 2020). It was imperative to formulate strategies to address the mental health of rural students facing substantial stress and depression due to the pandemic and difficulties in accessing education. This research also underscores the significance of increasing investments in rural education to prevent students from being left behind and to enable them to realize their full potential. Education is a fundamental right, and it is the government's duty to ensure that all children, regardless of their socioeconomic status or geographic location, have access to high-quality education.

Finally, it is essential to recognize that the challenges faced by rural students are not unique to Bangladesh but are prevalent in many developing countries. Therefore, the findings of this study have important implications for policymakers and education stakeholders worldwide. By addressing the challenges rural students face in accessing education, we can work towards building a more equitable and just society that leaves no one behind. The research findings can help inform policies and strategies for providing students with the necessary resources and infrastructure to access online education.

Conclusion & Recommendations

In conclusion, our research provides insight into the difficulties and expenses involved in implementing online education during the pandemic in rural areas of Bangladesh. Despite the introduction of measures like remote learning through television and multimedia classrooms in remote regions, our results indicate that these efforts did not lead to a seamless transition to online education. On the contrary, dropout rates rose, and the likelihood of early marriage escalated, underscoring the necessity for an inclusive and accessible remote learning approach that caters to the poorest and most vulnerable students in Bangladesh.

Based on our study, we offer several recommendations for policymakers to consider when designing policies for online education intervention in Bangladesh and other developing nations across the world:

1. To begin with, it is crucial to produce more empirical evidence for rebuilding the remote-learning strategy to make it more inclusive for poor and vulnerable communities. This could involve conducting studies that assess the effectiveness of existing policies and identifying areas for improvement. Schools should conduct surveys to assess the availability of devices and accessibility of the Internet for students. This will help identify the students who lack access to these resources and need assistance.

2. Upon finding the unavailability of e-learning devices and inaccessibility to electricity and devices, the school authority should arrange the same with the support of competent authority. By doing so, schools can ensure that all students have equal access to online education.

3. Supporting the students to use ICT effectively and familiarising them with most new learning technologies can be instrumental in making online education accessible and effective for all students. This could involve providing students with training on how to use online tools and resources effectively and how to access the Internet.

4. Moreover, access, quality, and participation should be given supreme priority. This will include the assurance of accessibility to all students and maintaining the highest quality of teaching-learning, and it has to be participatory in nature. By prioritizing these aspects, policymakers can ensure that all students have access to high-quality education, regardless of their socioeconomic background.

5. Students and parents should not suffer from anxiety about the evaluation or exam, results, certificate, and the overall value of the degree or education earned via virtual learning during critical times. It is crucial to ensure that online education is valued and recognized like traditional forms of education. This could involve developing standardized certification processes that recognize the value of online education.

6. Finally, in order to develop a framework for blended education, policymakers need to pay attention to the infrastructure and feasibility of remote learning. A national-level policy should be framed to develop and provide low-cost educational learning packages for availing online education to rural students in Bangladesh. By doing so, policymakers can ensure that all students have equal access to high-quality education, regardless of their socioeconomic background.

Acknowledgments

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Impact of SDGs Retraining Workshops on Pedagogical Competencies of Primary School Teachers

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Abstract

The qualities of a teacher are the essential factors that influence learners' academic performance. Most of these qualities are acquired through retraining programmes. As a result of this, many in-service training programme have been on-going. This study was undertaken to ascertain the impact of SDGs retraining workshop on pedagogical competencies of primary school teachers. It is a descriptive survey design guided by four research questions. The population of the study consisted of 3,115 primary school teachers who participated in SDGs retraining workshops. Multistage sampling technique was used to select 360 teachers. The researchers developed a structured questionnaire titled primary school teachers' pedagogical competence questionnaire (PSTPCQ, r=0.86). Mean and standard deviation were used to answer the research questions. The results of the data analysis revealed that the SDGs retraining workshops impacted basic science and technology teachers' pedagogical competencies positively in areas of teaching methods, construction of instructional materials and assessment of learning outcomes but negatively on the out-of-class science teaching strategy. It was recommended among others that all primary school teachers should be given opportunity to attend the SDGs retraining workshop and that adequate fund should be made available for regular and consistent retraining programmes to ensure greater and effective instructional delivery of BST lessons.

Keywords: pedagogical competencies, primary school teachers, national teachers' institute, sustainable development goals, retraining workshop

The need to end poverty, hunger, AIDS and discrimination against women and girls brought about the introduction of Sustainable Development Goals (SDGs). The sustainable development goals were adopted by United Nations in 2015 as a blueprint to achieve a better and more sustainable future for all and it is expected to be achieved by 2030 in every country of the world (United Nations, 2015). The SDGs came up with seventeen clearly defined goals and the fourth of the seventeen goals centres on education with mandate to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Alamin & Greenwood, 2018). Trainings and retraining workshops for teachers is the key for the success of critical goals to sustainable development on quality education (Akogun & Yomi, 2023). And this is what prompted the federal ministry of education of Nigeria through the National Teacher Institute (NTI) to start nationwide retraining workshops for primary school teachers on four core subjects namely, mathematics, English language, social studies and basic science and technology under the SDGs projects. The focus of this study is on basic science and technology (BST). The NTI provides the general guideline for nomination of participants as well as appoint resource persons to facilitate the retraining workshops.

The retraining workshops is a kind of in-service training programme that helps in updating teacher's knowledge and skills for improving teaching and learning in schools. United Nations Educational, Scientific, And Cultural Organization (UNESCO, 2019) defined in-service training as a process by which the teacher engages in refresher course to upgrade their professional knowledge, skills and practices in the course of their employment. Retraining workshops update teachers' competency, knowledge, expertise, positive attitude, practical skills, inquiry abilities and positive attitude towards teaching (Ngwu et al., 2019; Wahyudiati et al., 2022; Wahyudiati, 2023). Thus, the capacity building workshops is focused on enhancing teachers' effectiveness in pedagogical competencies. Ekim and colleagues (2022) defined pedagogy as the principles and methods of teaching or practice of teaching profession. Thus, pedagogy is a professional approach of imparting knowledge and skills on the learners in the classroom. Pedagogically, a teacher should be competent in the knowledge of content areas and arts of teaching to deliver quality instruction. Atsua and Abdullahi (2015) defined teacher competency as the ability of a teacher to do something or perform a task as expected or in line with stipulated standard or the possession of satisfactory level of relevant knowledge and acquisition of range of relevant skills. This, therefore, means that the teachers who implement the curriculum have to be pedagogically competent for the onerous task of guiding the learners through the curriculum content. Not only that teacher's initial training has adequately enabled them to acquire the necessary pedagogical competencies needed for effective implementation of the curriculum, the teacher should be given periodic and constant refresher capacity building workshops that will keep them continually updated in the required pedagogical competencies (Ademola, et al., 2023; Kakarla, 2023; Lubis, et al., 2023).

Basic science and technology (BST) is one of the subjects offered at primary and junior secondary schools and it plays a key role in shaping how the students acquire the spirit and methods of science as well foster learners' interest in science subjects. Through experimentation and practical activities in basic science and technology, the learners develop critical and logical thinking as well as scientific attitudes. In order to achieve this, the teacher

should be able to possess high pedagogical competencies that will ensure effective and efficient teaching of the innovated curriculum (Seth, 2020; Usman et al., 2023). The consistent and periodic development of the BST teachers for effectiveness in their classroom responsibilities becomes imperative. Without retraining the BST teachers to enhance their capacities they would most likely fail to understand and/or adopt the expected teaching strategies needed for effective implementation of the innovated basic science and technology curriculum. NTI has in the last seven years (2016–2022) embarked on massive teachers' capacity building workshops to retrain primary school BST teachers in line with Goal Four (quality education) of SDGs. Having been made an annual event since 2016, there is the need to determine the impact of SDGs retraining workshops on primary school teachers in terms of enhancing their pedagogical competencies in teaching basic science and technology in primary schools. The concern of this study, poised as a question, is *What is the impact of SDGs retraining workshop on pedagogical competencies of primary school BST teachers?* Therefore, the objective of the study is to determine the impact of SDGs retraining workshops on the pedagogical competencies of primary school teacher in basic science and technology. To achieve this objective, four research questions were raised.

a. What is the impact of the SDGs retraining workshops on the competencies of primary school teachers in the teaching methods to deliver basic science and technology (BST) lessons?
b. What is the impact of SDGs retraining workshops on the competencies of primary school teachers in constructing basic instructional materials to deliver BST lessons?
c. What is the impact of SDGs retraining workshops on the competencies of primary school teachers in the use of out-of-class science activities to deliver BST lessons?
d. What is the impact of SDGs retraining workshops on the competencies of primary school teachers in assessing learning outcomes in BST lessons?

Literature Review

The review of related literature were treated under three main theme of this study: Sustainable Development Goals (SDGs) and Education for Sustainable Development (ESD), teacher's Competencies and teaching activities and impact of refraining workshops programmes and teachers' pedagogical competencies.

Sustainable Development Goals (SDGS) and Educational for Sustainable Development

Education for Sustainable Development (ESD) and the SDGs were found to have a causal relationship in research by Diemer, Khushik, and Ndiaye (2020). Their research examined the causation with a focus on Pakistan and other emerging nations. The two researchers stated that SDG4's definition of excellent education as a means to improve people's quality of life is at the heart of education for sustainable development and the SDGs. Due to its dynamic character; Pakistan's SDG implementation is crucial and can serve as a case study for ESD and SDG research. Neither the Human Development Index (HDI) nor the Multidimensional Poverty Index (MPI) gives Pakistan a particularly high score. While Pakistan, Kenya, and Bangladesh

all share the same MPI, the disparity between the two countries is twofold in Pakistan and one-fold in Kenya and Bangladesh, respectively. Reviewing the Human Development Index and other indices helps us make sense of the connection between SDG-1 and SDG-4, which is crucial for realising the goals of both the national and global agendas. The work done here emphasizes the significance of and connection between various SDGs, policies, quality education, and ESD. It is determined that the quality of education in Pakistan may be enhanced by prioritising the SDGs in light of the country's specific circumstances and working towards the goals of education for sustainable development.

The lack of Education for Sustainable Development (ESD) focus has led to two issues, say Kalsoom, and colleagues (2018). There is a shortage of research on ESD-related concerns, and (i) preservice teachers' awareness of sustainability issues and attitudes and behaviours towards sustainability fall short of expectations. Kalsoom and colleagues (2018) examined a trove of Pakistani-authored academic literature on ESD. Springer, Taylor & Francis, and four national education publications were used as databases. More than 2,500 articles on ESD were located, but no research was conducted. Moreover, the scientists analysed 353 articles published in national journals between 2004 and 2016 and found that no articles pertaining to ESD were among them. There appears to be a severe lack of familiarity among Pakistani academics with the literature around sustainable development and education for sustainable development.

Nakidien and colleagues (2021) conducted a study examining the role of teachers and teacher education in South Africa in relation to the attainment of Sustainable Development Goal 4. The authors argue that despite the passage of a decade towards the realisation of the Sustainable Development Goals by 2030, African nations continue to grapple with issues of poverty and underdevelopment. The majority of children in Africa are unlikely to achieve Sustainable Development Goal (SDG) 4. Based on the findings of two interconnected empirical studies, one examining citizenship and social cohesion in high schools and the other investigating the implementation of assessment for learning in primary schools, it was determined that schools are inadequately prepared to deliver the high-quality education outlined in Sustainable Development Goal 4. Furthermore, it was revealed that teachers require further training in order to effectively embody the principles and objectives of Sustainable Development Goal 4. For the purpose of ensuring comprehensive resolution, it is imperative that all relevant parties, including government entities, businesses, and non-governmental organisations (NGOs), are actively engaged. To begin, it contends that issues of health, environment, and child nutrition are intrinsically related to the implementation of education for sustainable development. Therefore, the Sustainable Development Goals (SDGs) could help Pakistan enhance its educational system. Second, it presumes that "education quality" (SDG 4) and "poverty" (SDG 1) are intrinsically linked.

United Nations Development Programme (UNDP) (2018) found that 39% of Pakistanis, mostly in rural areas, were poor using the Multidimensional Poverty Index (MPI), which was based on government social statistics and derived using 15 criteria. Extreme poverty exists in Pakistan, with 50.9% of the country lacking access to even the most fundamental amenities. A

positive feedback loop suggests that raising the bar on educational quality can help alleviate poverty, and that doing so in turn raises the bar on educational quality across the board.

Teacher's Competencies and Teaching Activities

Effiong and colleagues' (2018) study of the whole quality management principles of education in elementary schools revealed that these teachers were ineffective in their classroom management and teaching activities. This is true because the vast majority of elementary school teachers hardly ever use the guided discovery technique that is suggested in the national curriculum for primary schools. As a result, educators who use the BST curriculum still require ongoing capacity building. The Sustainable Development Goals provide developing nations, such as Nigeria, with an opportunity to enhance the quality of life for their citizens by facilitating access to quality education and achieving other objectives related to Education for Sustainable Development (ESD). To effectively address local and global objectives, this international agenda emphasises the engagement of nations in establishing problem priorities that align with their respective domestic contexts. Poverty stands as a prominent issue in Nigeria. The implementation of the Sustainable Development Goals (SDGs) can effectively address this issue, particularly in terms of enhancing educational provisions to improve Human Development Index (HDI) indicators and mitigate the underlying factors contributing to poverty. The findings of this study have the potential to inform more informed policy decisions in subsequent periods, ensuring that the Sustainable Development Goals (SDGs) align with the long-term objectives and ambitions of the country. If no action is taken in the present, the challenges anticipated in the year 2030 will likely be significantly exacerbated. When examining the development and economic well-being of a nation, the consideration of education emerges as a key factor.

A study on the critical thinking abilities of basic science teachers and students for global economic growth was undertaken by Solomon and colleagues (2018). The study found that students and teachers of fundamental science and technology have poor critical thinking abilities. A teacher of fundamental science and technology should possess the fundamental knowledge and abilities necessary to influence students' behavior and critical thinking through instruction. But little will be accomplished for the students if a teacher is unsuccessful because of poor critical thinking. The teacher needs ongoing in-service teacher training programs in order to be able to demonstrate a certain level of competencies that will assure a quality standard in educating the students. The level of education inside a country significantly contributes to its overall significance. Training teachers is a crucial component inside India's comprehensive education system. In contemporary times, the concept of a training course has evolved beyond its traditional institutional framework, assuming a broader significance as a means for societal and national rejuvenation. The establishment of an effective teacher training methodology holds significant importance for India. In order to enhance students' educational achievements, there is a growing consensus among scholars that a key strategy for instructors is to enhance their instructional competencies, with a particular emphasis on cultivating student motivation and fostering a drive for learning.

In an effort to improve the writing abilities and motivation of undergraduate students, Meletiadou (2021) conducted research employing Padlets as electronic portfolios. According to the study's findings, students were able to considerably improve their writing abilities and increase their motivation for writing and learning in general. In their focus group discussion, the student teachers (pre-service teachers) requested assistance in honing their writing and reflective skills as well as extra help when using e-portfolios. In order to foster greater creativity in their students, teachers should accept the usage of cutting-edge teaching strategies to make sure that classroom interactions are student-centered. The Sustainable Development Goals (SDGs) are incorporated into educational contexts, which offer educators significant opportunities to foster critical thinking and problem-solving skills in both themselves and their students. These goals can be used by educators to promote discussions and activities that help students conduct critical analysis of complex global issues. Teachers who actively incorporate the Sustainable Development Goals (SDGs) into their pedagogical practices are more likely to cultivate cultural sensitivity and inclusivity in their lessons. Teachers will recognise the value of taking into account a variety of viewpoints and backgrounds, improving the fairness and inclusion of their teaching methods. Since active learning practices encourage student participation and engagement, they are commonly used in the context of SDG-related topics.

Retrainings and Pedagogical Competencies

Ekim and colleagues (2022) assessed how an in-service training program affected secondary mathematics teachers' pedagogical skills and use of technology. They found that while the program had a significant impact on teachers' pedagogical skills, their ability to use technology had not significantly improved. The results of this study have made it possible for teachers' capacity building to be centered on their ability to use ICT in the classroom in order to assure increased job performance. The association between in-service training and teaching skills was studied by Norwani and colleagues (2017). The study discovered a marginally significant link between teaching abilities and in-service trainings. The findings imply that teachers need to receive more thorough training in teaching techniques. The act of educating a girl has a profound impact on the entire family unit. When one imparts knowledge to an educator, the entire community is educated. According to the national curriculum plan for teacher education in 2009, a key objective of teacher education is to foster students' ability to perceive the world through the lens of equitable and sustainable development. It is evident that educators serve as a valuable source of ideas for promoting equitable and sustainable development across all sectors of society. As a result of these circumstances, individuals necessitate comprehensive training across several domains, including but not limited to the cultivation of respect for the rights of all individuals, the promotion of gender equality, and the fostering of peace.

The study on the effect of professional development activities on teachers' perceived proficiency in teaching English was carried out by Omar (2017). The findings showed that participation in professional development activities boosted instructors' teaching competencies. This demonstrates the necessity of providing instructors with frequent, ongoing training in order to improve their competencies. The results of a study conducted by Ngwu and colleagues (2019) on evaluating the professional development needs of junior secondary school

basic science teachers showed that the study area's professional development programs do not adequately address teachers' needs and that basic science and technology teachers are not taken into account when planning professional development programs. It is crucial to determine which pedagogical abilities the instructors need the most based on this result in order to plan and organize capacity building activities specifically for them. Osei-Owusu (2022) conducted research on how professional development programs affect teachers' knowledge and senior high school students' academic performance in Nigeria. The study's findings demonstrated a strong positive association between professional development and professional knowledge and Competencies. This suggests that the professional development programs are intended to accomplish the general objectives of professional development programs, which include familiarizing instructors with contemporary trends that enliven their ideas and make them more relevant in the achievement of educational goals. Therefore, those involved in education should give frequent and constant retraining of instructors more attention. The correlation between a student's academic achievement and the competence of their instructor underscores the significance of providing teachers with the necessary training to effectively inspire and engage their pupils in the learning process. It is imperative for the instructor to establish a positive example for the students to emulate. This intervention is expected to facilitate the cultivation of enhanced moral values among the students. The fundamental components of sustainable development encompass the formulation and implementation of these guiding principles, fostering social consciousness, recognising economic considerations, and advancing environmental preservation, among various other facets. It can be reasonably inferred that those employed as educators has a certain level of concern for sustainable development, as they are likely to possess knowledge regarding the issues associated with it. The training of teachers is a highly effective mechanism, thereby rendering it one of the most optimal approaches for attaining the objectives of sustainable development. Professional development programmes for educators aim to ensure that students are provided with competent teachers who will facilitate their lifelong learning. The quality of instructors is significantly influenced by the training they get, (Nkomo & Abdul, 2023).

Mak (2019) looked into how a professional development program affected teachers' assessment skills. The results showed that the professional development initiatives improved instructors' knowledge of assessment. This indicates that their assessment abilities have improved as a result of the retraining seminars. Therefore, it is important to support the teachers' professional development programs so that teachers can continue to strengthen their evaluation abilities. Teachers who participate in workshops centred on the evaluation and assessment, Sustainable Development Goals (SDGs) are more likely to pick up cutting-edge pedagogical techniques that encourage active participation and student engagement. Enhancement of Assessment and Feedback: by trained teachers create authentic assessments that are in line with the Sustainable Development Goals (SDGs), educators have the chance to improve their assessment and feedback skills. The deployment of more thorough feedback and evaluation procedures may arise from these evaluations, forcing students to analyse, evaluate, and develop solutions for actual situations.

Evidence from the literature analysis mentioned above revealed inconsistent reports on how professional development programs for teachers affected the thinking and pedagogical skills that instructors need to have in order to provide high-quality education. The result that instructors' classroom interaction patterns remain learner-centered rather than teacher-centered after teachers' capacity building programs (Ngwu et al., 2019) further reinforces the cause for concern. In light of this, the current study was carried out to ascertain how the SDGs retraining workshops affected the pedagogical abilities of primary school teachers.

Methodology

The study employed descriptive survey design. It is a research design that observes, collects and describes data in a systematic manner of the characteristics feature of population (Lawrant, 2018). The design is considered most appropriate because the study would select a sample from the population from which generalization would be made. Furthermore, there would be no manipulation of variables rather appropriate information would be collected from teachers of basic science and technology on the levels of competencies needed for effective implementation of BST curriculum. The population for the study comprised of all teachers in public primary schools in Kogi State that participated in the SDGs capacity building workshops since its inception in 2016. There are 3,115 teachers. This number represented the number of teachers who participated in SDGs retraining workshops in Kogi since 2016. The sample size of 360 for this study was determined using Krejice and Morgan (1970) method. Multistage sampling technique was used in selecting the research sample. Multi-stage was used because the sample were drawn at different stages. Firstly, simple random sampling technique (balloting by replacement) was used to select three local government areas from each of the three educational zones of Kogi State, giving a total of 9 local government areas out of the 21 local government areas of Kogi State, Nigeria. Secondly, purposive sampling technique was used to draw 4 primary schools based on the population of primary school teachers (10 and above) who participated in SDGs retraining workshops giving a total of 36 primary schools. Thirdly, simple random sampling technique was carried out through the use of balloting with replacement to select 10 primary school teachers who participated in the SDGs retraining workshops from each of 36 primary schools already sampled. The names of the primary school teachers were written on pieces of paper, folded and put in transparent container, shuffled and researchers drew the teachers with replacement. Since 10 teachers were drawn from 36 sampled primary schools, the total of 360 teachers participated as the sample of the study. The NTI office Lokoja and head teachers at the sampled schools supplied the information of the SDGs workshops participants, from which the sample was drawn.

The instrument used for data collection was a structured questionnaire developed by the researchers titled primary school teachers' pedagogical competencies questionnaire (PSTPCQ). It was divided into two sections (A and B). Section A was made up of biodata, which made up of gender, school location and participation in SDGs workshops. Section B was divided into four clusters tagged I, II, III and IV clusters that were used to solicit information on primary school teachers' effectiveness in teaching basic science and technology on: use of teaching methods, construction of basic instructional materials, use of out of class activities in

teaching and assessment of learning outcomes. Questions that were posed to the participants according to the clusters as follows:

Cluster 1: How effective are you in using the following teaching methods and strategies to deliver BST lesson?
Cluster 2: How effective are you in constructing basic instructional materials/equipment? Cluster 3: How effective are you in carrying out-of-class-science activities and programmmes while teaching topics in BST curriculum?
Cluster 4: How effective are you in the assessment of learning outcomes while preparing to teach and actually teaching topics in the BST curriculum?

Each of the item in the different cluster ranked on a five points scale of very effective (VE = 5), effective (E = 4), moderately effective (ME = 3), somehow not effective (SNE = 2), not effective (NE = 1).

The instrument was validated by presenting it to three experts, two in chemistry education and one in measurement and evaluation all from University of Nigeria, Nsukka. The experts were requested to scrutinize the instrument for the purpose of ensuring the suitability and appropriateness in addressing the research purpose of the study. Consequently, suggestions for improvement were strictly implemented which resulted to the final draft of the instrument. The validated instrument was administered to 40 primary school teachers who were not part of the sample as a pilot study. Data obtained from their various responses on the questionnaire were used in determining the reliability, using Cronbach Alpha formula. The final Cronbach Alpha reliability coefficient of 0.86 was obtained for the instrument. Data collection was carried out by 30 research assistants (10 per zone) who were properly trained in their zones on the administration of the instrument and later assigned to their respective educational zones for the administration of the questionnaires. The choice of large number of research assistants is to ensure that the research work was carried out simultaneously in various zones at the same period of time. This was necessary as the questions were not reshuffled or modified for teachers in different zones or areas. The questionnaires were served and retrieved the same day to ensure 100% return rate of the instrument. Data collected were analysed using mean and standard deviation to answer research questions. The criterion mean is 3.00 since 5-point rating scale of VE =5, E = 4, ME = 3, SNE = 2, NE = 1 was used. The criterion mean was obtained by averaging the five scales as follows: $\frac{5+4+3+2+1}{5} = 3.00$. In taking decisions, a mean value of 3.0 and above is agreed and mean value below 3.0 is disagreed. When the respondents agreed with the idea in the item, it implies that SDGs retraining workshops has impact in respect of the item. Similarly, when the respondents disagreed with the idea in the item, it implies that SDGs retraining workshops has no impact in respect of the item.

Results

Research Question One: What is the Impact of SDGs Retraining Workshops on Teaching Methods?

Table 1

Mean and Standard Deviation of the Impact of SDGs Retraining Workshops on Teaching Methods

S/No.	Items	X	SD	Remarks
1	Guided inquiry method	3.49	1.17	Impact
2	Demonstration method	3.48	1.07	Impact
3	Lecture method	3.53	1.16	Impact
4	Discovery method	3.60	1.15	Impact
5	Process-based classroom interaction methods	3.62	1.01	Impact
6	Discussion method	3.51	1.03	Impact
7	Questioning method	3.60	1.09	Impact
8	Laboratory method	3.46	1.06	Impact
9	Project method	3.38	1.09	Impact
10	Concept mapping method	3.51	0.91	Impact
11	Problem based method	3.67	1.02	Impact
12	Cooperative learning strategies	3.67	0.96	Impact
13	Competitive learning strategies	3.54	1.08	Impact
14	Field trip method	3.68	0.99	Impact
15	Use of analogy	3.24	1.03	Impact
16	Group discussion method	3.64	1.03	Impact
17	Group project method	3.68	0.97	Impact
18	Advance organizer method	3.59	1.05	Impact
	Grand mean / standard deviation	3.55	1.04	Impact

Table 1 shows item by item of mean and standard deviation of individual's responses on the impact of SDGs retraining workshops on competencies of primary school teachers in using teaching methods to deliver BST lessons. All the items have mean scores of above 3.00 benchmark, indicating that SDGs retraining workshops have positive impact on competencies of primary school teachers in using teaching methods in delivering BST lessons.

Research Question Two: What is the Impact of SDGs Retraining Workshops on Constructing Basic Instructional Materials?

Table 2

Mean and Standard Deviation of the Impact of SDGs Retraining Workshops on Constructing Basic Instructional Materials

S/No.	Items	X	SD	Remarks
19	kites,	3.76	0.99	Impact
20	inclined planes,	3.72	0.95	Impact
21	pulleys,	3.51	0.97	Impact
22	wind vanes,	3.53	1.87	Impact
23	Pulley	3.55	1.07	Impact
24	Simple level machines	3.65	1.87	Impact
25	measuring Instruments:	3.66	0.87	Impact
26	Measuring cylinder,	3.26	1.08	Impact
27	weighing balances	3.10	0.98	Impact
28	Ruler/Tape	3.16	0.78	Impact
29	chemical balance,	3.33	1.10	Impact
30	spring balance	3.01	1.12	Impact
31	tit-pipette	3.16	0.98	Impact
32	Stop clock/watch	3.24	0.87	Impact
	Grand mean/ standard deviation	3.40	1.06	Impact

Table 2 shows that the Mean and Standard Deviation of the respondents on the Impact of SGDs retraining workshops on BST Teachers' competencies in constructing basic instructional materials. The mean value of all the 14 items as well as the grand mean are more than the criterion mean of 3.00. This implies that SDGs retraining workshops have impacted positively on BST teachers' competencies to construct the basic instructional materials for delivering BST lessons.

Research Question Three: What is the Impact of SDGs Retraining Workshops on Primary School Teachers' Competencies in the Use of Out-of-Class Science Activities?

Table 3

Mean and Standard Deviation of the Impact of SDGs Retraining Workshops on Primary School Teachers' Competencies in the Use of Out-of-Class Science Activities

S/No.	Items	X	SD	Remarks
33	Organizing BST debates for learners.	2.98	1.43	No impact
34	Taking learners out on field trip to places of BST interest in the community.	3.11	1.13	Impact
35	Linking community concerns to BST teaching/ learning activities.	2.82	1.20	Not impact
36	Linking community economic activities to BST learning activities	2.75	1.09	Not impact
37	Linking environmental concerns to BST teaching/ learning activities.	2.69	1.11	Not impact
38	Bringing in community-based resource persons as role models to talk to children learning through BST curriculum.	2.86	0.97	Not impact
	Grand mean and standard deviation	2.87	1.15	Not impact

Table 3 shows the mean and standard deviation of the impact of SDGs in training workshops on primary school teachers' competencies in the use of out-of-class science activities. All the individual mean scores, as well as grand mean scores except for item 34 are below the criterion mean of 3.00. This that implies the respondents agreed that SDGs retraining workshops have negative impact on primary school teachers' competencies in using out-of-class science activities in BST lessons. Thus, primary school teachers are incompetent in using out-of-class science activities in delivering their BST lessons after the SDGs retraining workshops.

Research Question Four: What is the Impact of SDGs Retraining Workshops on Primary School Teachers' Competencies in Assessing Learning Outcomes?

Table 4

Mean and Standard Deviation of the Impact of SDGs Retraining Workshops on Primary School Teachers' Competencies in Assessing Learning Outcomes

S/No.	Items	X	SD	Remarks
39	Constructing good achievement test instrument based on the objectives of the lesson.	3.23	1.12	Impact
40	Assessing the learners as teaching goes on in the classroom	3.56	1.16	Impact
41	Using innovative assessment practices	3.10	1.08	Impact
42	Creating positively challenging assignment for the learners.	3.06	1.30	Impact
43	Constructing observational rating scale for assessment of practical skills.	2.89	1.13	No impact
44	Developing good BST attitude scale for learners.	2.74	1.16	No impact
45	Developing BST interest scale for learners.	2.56	1.18	No impact
46	Constructing practical tests.	2.82	1.13	No impact
47	Developing adequate marking scheme for scoring learners' tests outputs.	3.60	0.99	Impact
48	Marking series of assignments and tests	3.32	0.89	Impact
	Grand mean and standard deviation	3.09	1.11	Impact

Table 4 shows impact of SDGs retraining workshops on primary school teachers' competencies in assessing learning outcomes. Items 39, 40, 42, 43, 47 and 48 have means of 3.00 and above while items 43, 44, 45 and 46 have means below 3.00 criterion mean, however the grand mean of 3.09 was obtained for the 10 items indicating, that overall SDGs retraining workshops have positive impact in primary school teachers' competencies in assessing learning outcomes in BST lessons.

Discussion

Results on Table 1 in respect of research question one revealed that the primary school teachers who participated in the SDGs retraining workshop were generally of the view that their participation enhanced their pedagogical competencies on using conventional and innovative teaching methods in delivery BST lessons. The teacher's effective use of innovative teaching methods after the retraining workshop is a welcome development and realization of learner-centred teaching. This will encourage activity-based learning which include learner's active participation, interactive discussion, creativity and doing which are the hallmarks of learning science. It is particularly interesting to note the SDGs retraining workshops have positively impacted the primary school BST teachers towards the utilization of modern teaching methods in their classroom interaction pattern. Hence primary school teachers have not participated in the retraining workshops should endeavour to upgrade themselves in the use of modern teaching methods through attendance to SDGs retraining workshops. The finding of this study is in line with the findings of Ekim and colleagues (2022), and Osei-Owusi (2022) who

revealed that in-service training programme significantly impacted teachers' pedagogical skills. Thus, the primary school teachers should be given retraining workshops that will keep them continually updated on the latest teaching methods and pedagogic skills. According to Sunthonkanokpong and Murphy (2019), the concept of quality in teacher education is underpinned by the acquisition of information, skills, and teaching methods by trainees through classroom instruction and practical experience. According to Lalvani (2013), the medical perspective on education primarily centres on the impact of individual students' learning difficulties on their academic performance, rather than considering the influence of social and contextual factors on students' grades. The fourth objective of the Sustainable Development Goals is to achieve the eradication of severe poverty and hunger by the year 2030. This phenomenon presents a greater challenge in attaining the desired objective. In response to this, recent revisions to the teacher training curriculum have endeavoured to shift the conceptualization of difference away from the deficit perspective. Currently, there is an increased emphasis on developing a heightened awareness and understanding of the social and educational elements that influence children's capacity to acquire knowledge (Lalvani, 2013).

The findings on Table 2 with respect to research question two revealed that the respondents agreed that SDGs retraining workshop had positive impact on primary school teachers' construction of basic instructional materials for BST lessons. Availability and utilization of instructional materials is one of the most essential components of teaching and learning process. Before the utilization of these materials they have to be available. However, in most developing countries, most of these instructional materials are not available because of the high cost. Therefore, science teachers have been called upon to improvise or construct some basic instructional materials from the resource materials available in their rich environment. However, the primary school teachers need their capacity strengthened in order to achieve this objective. The SDGs retraining workshops has remarkably improved teachers' pedagogical competencies in constructing some basic instructional materials for BST lessons. The, finding concur with the finding of Omar (2017) which revealed that the past professional development programmes resulted in high improvement in teachers' skills among others. Significant modifications are being implemented in educational institutions to acknowledge and embrace diversity (Jetly & Singh, 2019; Sunthonkanokpong & Murphy, 2019). According to the conceptual framework proposed by Sunthonkanokpong and Murphy (2019) for Sustainable Development Goal 4 (SDG 4), the notion of equity in teacher education entails facilitating trainees' ability to embrace principles of social justice and prioritise equitable teaching practises. Such as the construction and use of instructional materials in teaching and learning processes.This educational intervention aims to support students who are marginalised or socially excluded, facilitating lifelong learning opportunities in order to promote social equity within society. What was discussed about the least in the SEN course, meanwhile, were the rights of children to education, social justice, and communicating and working with parents.

The findings on Table 3 in respect of research question three revealed that the SDGs retraining workshops have not positively impacted primary school teachers in the aspect of out-of-class science activities. The results indicated that primary school teachers lack the pedagogical competencies to carryout out-of-class science activities after the SDGs retraining workshops.

The teachers were particularly deficient in some pedagogical competencies such as organizing BST debates for learners linking community concerns to BST learning activities, linking community economic activities, linking environmental concern and bringing community-based resource persons as role models. The finding of this study corroborates the finding of Ngwu and colleagues (2019) which found out that the professional development programmes are not meeting the pedagogical need of basic science and technology teachers. Thus, this particular result thus contradicts the objectives of the SDGs retraining workshops which emphasis on the use of, hand-on, mind-on activities to foster learner's interest in science. Therefore, there is need to focus attention on this aspect in future retraining programmes. Therefore, we argue that it is imperative to dismantle the hierarchical structure inherent in traditional teaching and learning dynamics, and instead foster an environment that nurtures personal development. This is because educators who possess a comprehensive understanding of pertinent laws and policies are more inclined to exhibit effectiveness in their inclusive pedagogy. Furthermore, the utilisation of outdoor activities that are beneficial and designed to cater to a wide range of individuals is a crucial aspect of delivering inclusive training that facilitates adaptable approaches to learning.

The findings on Table 4 with respect to research question 4 revealed that overall, primary school teachers were effective in their assessment of learning outcomes after the SDGs retraining workshop but were lacking in area construction of observational scale, attitude scale, interest scale and practical tests. Assessment of students is very essential in teaching/learning process as it provides the necessary feedback to the students. The finding of this study is in line with the finding of Mak (2019) which revealed that teachers' assessment knowledge was enhanced by the professional development efforts. This mean that the retraining workshops of teachers have improved their assessment abilities and should be encouraged to be organized on regular basis. It is on this note that Jetly and Singh (2019), posit that the aforementioned concerns hold significant importance in the context of sustainable development and serve as the foundation for fostering a sustainable future. Regarding the establishment of a sustainable future, the subsequent issues pertaining to sustainable development are of utmost significance. The findings of this study provide empirical support for advocating significant support for teachers training in line with SDG goal 4, this intervention is expected to have a lasting impact on the enhancement of teacher education. The perspective on this matter has the potential to influence the attitudes of educators towards endorsing inclusive education in both established (Lalvani, 2013) and developing (Dart, 2006) nations. Purdue and colleagues (2009), argued that trainees developed an understanding that every kid is entitled to get a quality education. This realisation occurred as a result of engaging in discussions about disability from various perspectives, including the lens of rights rhetoric. Adding strength to the above, the scholarly works of Jetly and Singh (2019) and Sunthonkanokpong and Murphy (2019), there is a proposal to incorporate the concept of quality into teacher education programmes in order to ensure its sustainability.

Implications

The Sustainable Development Goals (SDGs) can have a major impact on the pedagogical competencies of primary school teachers who are undergoing retraining. The aforementioned consequences have some implications which are discussed below: Teachers' awareness of global issues and ambitions is increased by the SDG retraining workshops, which promote a greater grasp of topics relating to sustainability, poverty, inequality, and climate change. This higher degree of awareness can lead to a more thorough and informed approach to teaching. The Sustainable Development Goals (SDGs) can be effectively used by educators to demonstrate the relevance of many academic fields in real-world contexts.

The capacity of educators to show students how their newly learned knowledge relates to larger global issues helps to increase student's engagement and the importance of the learning process. Collaboration among educators from various academic fields is encouraged as a result of the adoption of an interdisciplinary approach commonly required for the attainment of the Sustainable Development Goals (SDGs). As a result of learning how to design and implement cross-curricular lessons that encourage the development of critical thinking and problem-solving skills, teachers' pedagogical skills may be strengthened.

Since SDGs retraining workshops has impacted positively on primary school BST teachers' pedagogical competencies especially in areas of teaching methods, construction instructional materials and assessment techniques, all primary school teachers should be given the opportunity to attend the workshops. This can be achieved if government at various levels organize SDGs retraining workshops quarterly (4 times in a year) as against once in a year that is presently in vogue. Stakeholders such as non-governmental organizations should support government financially to ensure that adequate fund is available for the quarterly retraining of all the teachers in the primary schools in order to ensure greater instructional delivery BST lessons.

Since the primary school BST teachers are deficient in the pedagogical skills of out-of-class science activities, the SDGs retraining workshops should be organized to target this specific aspect of the skill, which in turn will improve their performance on their jobs in this specific area. Thus, accurately focused capacity building workshop should be developed and organized on out-of-class science activities for the primary school teachers. The SDGs retraining workshops should enable primary school teachers to effectively utilize out-of-class science instructional strategy in order to make their teaching real and activity-based, thereby enhancing pupils' interest in science subjects as well as ensuring equity.

Resource persons/facilitators of NTI should refocus their retraining programmes on the deficient areas of assessment techniques such as development of rating scales and practical tests. This will ensure that the retraining programmes cover the assessment of all the three educational domains (cognitive, affective and psychomotor) rather than cognitive domain only. In this way, emphasis will be laid on character formation and adequate development of motor skills of the pupils.

Conclusion

Based on the finding of the study, it was concluded that the SDGs retraining workshops have impacted positively and thereby enhanced the pedagogical competencies of primary school BST teachers in the areas of the use of teaching methods, construction of some basic instructional materials and assessment of learning outcomes, but the teacher are still deficient in some areas of assessment procedures such as construction of observation, attitudes' and interest scales as well as the construction of practical tests.

It was also concluded that in spite of SDGs retraining workshops, primary school teachers were still lacking in pedagogical competency of out-of-class science activities. It is important to carry out this study in wider context to include the use of technologies. Therefore, further research should be conducted on the impact of SDGs retraining workshops on primary school BST teachers' use of computer assisted instruction (CAI).

Acknowledgement

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Appendix

Primary School Teachers' Pedagogical Competencies Questionnaire (PSTPCQ)

We are science teacher educators. We are conducting a research to find out the teaching skills which Basic Science and Technology teachers in our schools have and those they do not have. The need is to create a competency based programme of retraining the **Basic Science and Technology (BST)** teachers to improve their knowledge and skills. We therefore request you to most sincerely complete the questionnaire below to enable us find the important things you may not know so that we can select what we shall include in the retraining programme we want to develop to improve the capacity of BST teachers. **Please, Tick (√) in the appropriate column** of the scale below as it applies to you. Please try and be as honest as possible for the information you give will be used for only research purpose and your confidentiality is assured.

Section A: Demographic Information
Gender: Male ☐ Female ☐
Location: Urban ☐ Rural ☐
The Classes you teach.: (Tick as many as you teach)
PRY 1 ☐ PRY 2 ☐ PRY 3 ☐ PRY4 ☐ PRY 5 ☐ PRY 6 ☐
Your Qualifications: SSCE ☐ TCII ☐ NCE ☐ OND ☐ ND ☐
B.Ed. ☐ B.SC ☐ MASTERS ☐ PhD ☐ Any Other ☐
Did you benefit from the training given by NTI during the MDG training programme?
Yes ☐ No ☐

Section B: Rate yourself on 5-point scale in each of Competency statements below. The scale points range from 1 to 5 where 5 is the highest level of effectiveness. How effective are in you in the following areas:

Cluster A	Item statement using teaching methods to deliver BST lessons.					
S/No.		1	2	3	4	5
1	Guided inquiry method					
2	Demonstration method					
3	Lecture method					
4	Discovery method					
5	Process-based classroom interaction methods					
6	Discussion method					
7	Questioning method					
8	Laboratory method					
9	Project method					
10	Concept Mapping					
11	Problem based method					
12	Cooperative learning strategies					
13	Competitive learning strategies					
14	Field Trip method					
15	Use of analogy					
16	Group Discussion method					
17	Group project method					
18	Advanced Organizers Method					

Cluster B	Constructing basic instructional materials/equipment:					
19	kites,					
20	inclined planes,					
21	pulleys,					
22						
3	wind vanes,					
23	Pulley					
24	Simple level machines					
25	Using measuring Instruments:					
26	Measuring cylinder,					
27	weighing balances					
28	Ruler/Tape					
29	chemical balance,					
30	spring balance					
31	tit-pipette					
32	Stop clock/watch					

Cluster C	Out-of-class-science activities and programmes					
33	Organizing BST debates for learners.					
34	Taking learners out on field trip to places of BST interest in the community.					
35	Linking community concerns to BST teaching/learning activities.					
36	Linking community economic activities to BST learning activities					
37	Linking environmental concerns to BST teaching/learning activities.					
38	Bringing in community-based resource persons as role models to talk to children learning through BST curriculum.					

Cluster D	Effective Assessment of Learning Outcomes.					
39	Constructing good achievement test instrument based on the objectives of the lesson.					
40	Assessing the learners as teaching goes on in the classroom					
41	Using innovative assessment practices					
42	Creating positively challenging assignment for the learners.					
43	Constructing observational rating scale for assessment of practical skills.					
44	Developing good BST attitude scale for learners.					
45	Developing BST interest scale for learners.					
46	Constructing practical tests.					
47	Developing adequate marking scheme for scoring learners' tests outputs.					
48	Marking series of assignments and tests					

Exploring Intercultural Communication as a Means to Promote Inclusivity in Diverse Organisations: A Study in a South African University

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Abstract

The paper aimed at exploring intercultural communication as a means to promote inclusivity in diverse organisations. The study adopted a case study design with qualitative data. A semi-structured interview guide with open-ended questions was utilised as the main data collection tool from a sample of ten purposively selected professionals from the departments responsible for transformation, employment equity, and diversity; human resources development, corporate affairs, and marketing. The study's findings showed that the university lacked a well-thought-out action plan for taking a deliberate approach to intercultural communication as a means to promote inclusivity. In particular, the staff felt that there was no deliberate attempt to guarantee that intercultural communication was handled uniformly throughout the university and that communication strategy documents did not offer direction regarding how successful intercultural communication could take place. The university's current practices in relation to cultural awareness and training initiatives only focus on cultural diversity and should be amplified to include raising awareness of how intercultural communication can unify people who differ culturally towards a common purpose. Furthermore, the university should consider expanding its current cultural diversity training programmes to include training on intercultural communication dimensions. Cultural awareness campaigns in the form of information fliers, cultural events, and cultural training sessions should form an integral part of intercultural communication enhancement initiatives.

Keywords: culture, diversity, inclusivity, cultural diversity, intercultural communication, intercultural communication competence, intercultural communication enhancement, internal communication

Cultural diversity has an impact on many aspects of an employee's work environment, including how well they get along with co-workers who are different from them (Hellriegel et al., 2013; Smit et al., 2011). Organisational managers and executives must acknowledge that their workforce comprises culturally diverse groups and that employee cultures affect communication. People's behaviour is influenced by their diverse cultural backgrounds, experiences, and perceptions, which are evident in how they interact and communicate with each other (Penceliah, 2008; Nyathi-Saleshando, 2011).

Therefore, differences in cultures can lead to misunderstandings and consequently ineffective communication. According to Roy and colleagues (2016), misunderstandings occur in intercultural communication simply because people have different perceptions and interpretations of the same information. According to Green and colleagues (2018), perception is more of a process in which each individual creates mental images. Green and colleagues (2018) further explain that perceptions drive communication decisions and understanding this process helps us to avoid common perceptual problems. Roy and colleagues (2016) argue that individual perceptions and cross-cultural communication are crucially shaped by culture. In particular, they are shaped by culturally ingrained and infused beliefs, values, media, worldviews, and language.

Since participants in intercultural communication come from a variety of cultural backgrounds, cooperation is necessary for communication to be effective between all employees (Penceliah, 2008; Sadri & Flammia, 2011). Therefore, the significance of successful intercultural communication inside organisations should not be understated because it influences the organisation's goals and significantly affects how well it functions. Culturally diverse organisations may struggle to function properly without effective communication. (Flammia, 2011). This emphasises the significance of a strategic and continuous effort to enhance intercultural communication.

Organisations should foster a culture where work-related plans, work instructions, issues, opinions, thoughts, and ideas are shared through effective communication in light of the knowledge that employees use communication to carry out their jobs. (Adu-Oppong & Agyin-Birikorang, 2014; Hellriegel et al., 2013). It is of this view that an effective intercultural communication approach is important if everyone involved understands the goals and desired outcomes and can work towards the successful execution of plans and tasks.

Organisations that manage intercultural communication benefit from such an approach. Managing intercultural communication, including the understanding that cultural diversity has a communicative purpose, helps culturally diverse organisations to improve intercultural communication competence, which is a requirement for employees from various cultural backgrounds to work together to achieve a common purpose (Gudykunst, 2005; Sadri & Flammia, 2011). In order for organisations to respond to the challenges of intercultural communication, they must recognise the communication difficulties and needs of employees. Hence the recognition and appreciation of cultural differences is the departure point of working

towards enhancing intercultural communication thereby creating inclusivity within diverse organisations.

The university's existing strategy for dealing with intercultural communication challenges does not support the uniform, concentrated, and coordinated strengthening of intercultural communication skills. Turning our attention to barriers of intercultural communication, Sadri and Flammia (2011) show how encounter contexts can greatly impact whether or not the encounter results in the development of favourable attitudes towards people from different cultural backgrounds. A preliminary review of the university's strategic and policy documents, as reported reveals that the university seems to lack a uniform intercultural communication enhancement approach, which is necessary for its employees to clearly understand what the institutional strategic goals and desired outcomes are so that they can work to achieve them. It is maintained that effective intercultural communication facilitates the achievement of predetermined goals and desired outcomes. The perceived absence of a common approach to issues of intercultural communication is, for the purpose of this study, considered to be a less-than-ideal practice for the enhancement of intercultural communication to promote employees' inclusivity, and is unlikely to help the university strategically and continuously improve intercultural communication competence of its culturally diverse employees. The perceived gap in the university's current approach to intercultural communication issues calls for a different approach that could enhance intercultural communication so that employees from different cultural backgrounds could develop their intercultural communication skills and ultimately help the university succeed.

By using a strategy appropriate to the university's distinctive and culturally diverse environment, the discovered intercultural communication deficit might be addressed. To start closing the gap, it may be necessary to look into the presumptions driving suggestions for improving intercultural communication within an organisation with diverse employees. This study is therefore desirable to extend knowledge on how effective intercultural communication promotes inclusivity in the workplace. Consequently, the paper sought to find answers to the following research question, *How does effective intercultural communication promote inclusivity in the diverse organisation?*

Literature Review

The Impact of Culture on the Intercultural Communication Environment

Culture, as a whole, consists of a set of beliefs, values, attitudes, and patterns of behaviour shared by members of a social unit. In the context of internal communication, it is assumed that each culture encourages a particular communication style, has the power to shape perception, and is regarded as the glue that bonds organisation members together (Hartnell, Ou. & Kinicki, 2011; Reisinger & Turner: 2012). As propounded, culture has an impact on behaviour and communication. Accordingly, culture and communication are inseparable, as culture is the foundation of communication this is more prevalent when communication occurs between individuals from diverse cultural backgrounds. When different cultures are involved,

communication practices vary. It is indispensable for individuals to understand cultural differences, as culture tells us how to interpret the behaviour of others, including how to communicate effectively with individuals from other cultural backgrounds (Schmitz, 2012).

It is important to mention that there are different levels of culture, namely, 1) *National culture*, the set of norms, behaviours, beliefs, and customs that exist among the population of a sovereign nation; 2) *Business culture*, which represents the working style, accepted norms, values, and beliefs of the sector within which an organisation operates; 3) *Organisational culture*, which is a system of shared assumptions, values, and beliefs, which govern how individuals behave in organisations; and 4) *Occupational culture*, which encompasses associated values, norms, and characteristics of members of a particular occupational group (Westaby, Fowler, & Philips, 2020). Whatever cultural environment surrounds people helps to shape and form their attitudes, behaviour and readiness to respond to intercultural encounters (see Samovar & Porter, 2007). The university, for instance, is characterised by values, norms, and characteristics that can be understood to be the foundation upon which its intercultural communication practices should be based.

In order to effectively improve intercultural communication, all university staff members must be sensitive to the values, conventions, and traits that are likely to affect the institution's communication style. When workers switch from one cultural context and communication style to another, they must comprehend the underlying meaning of culture (Littlejohn & Foss, 2009; Schmitz, 2012). Gill and Orgad (2015) assert that cultural aspects show how the group sees its own social system. In order to comprehend what dominant ideas, values, norms, and traits are being ingrained in the way communication occurs in a specific social situation, people must be able to recognise the factors that make up a particular culture.

Mushaathoni (2021) avers that though there might be more similarities than differences regarding cultural elements among the university employees, and despite the many common attributes employees share, there still exist cultural differences. As elucidated cultural differences also exist within a single race, language group, religious group, or nationality; people are also differentiated by age, gender, socio-economic status, education, and exposure to other cultures (ibid). Furthermore, (1) cultures have internal variations, and cultural awareness varies among individuals; (2) one's own sense of cultural identity is not always evident until you encounter another culture; (3) cultures continuously evolve; and (4) understanding another culture is a continuous process (Kagawa-Singer et al., 2010; Samovar & Porter, 2007). It is imperative that decision-makers at the university have a sense of these dynamics of culture, so that they ensure that appropriate measures that are aimed at enhancement of intercultural communication and improvement of intercultural communication competence are in place.

It is important to stress that each generation passes on its culture to the following one and that rituals, myths, and symbolism all serve to continually reinforce a particular culture. When it comes to organisations, culture has a tremendous impact on how people think, act, and most importantly, how they view others. Given the impact culture has on communication, it becomes

imperative for organisations to recognise that culture teaches significant rules, rituals, and procedures that are essential for interaction among employees.

The Process of Transformation to a Competent Intercultural Communicator

Compelling intercultural communicators are individuals who are (1) motivated, (2) possess a wealth of knowledge to draw from, (3) have communication skills, and (4) have good moral character – qualities that set them apart from others in the field and help them choose the most suitable path. Based on the criteria used in this paper, these attributes rank as the most crucial fundamental prerequisites or facilitators of intercultural communication.

Motivation

Motivation, as it relates to intercultural communication competence, means that, as a communicator, someone wants to interact with people from cultures different to their own, and for that to happen successfully, they must desire to improve their ability to communicate effectively across cultures. Feelings, intentions and actions are conditions that motivate or are more likely to lead to an attitude conducive to individuals having a desire to become competent intercultural communicators. *Feelings* are the emotional states that are experienced when communicating with someone from a different culture. *Intentions* guide choices in a particular intercultural interaction – the goals, plans, objectives and desires that focus and direct behaviour. *Actions* are the actual performance of behaviours that are regarded as appropriate and effective during intercultural communication encounters. If people allow feelings of anxiety, ethnocentrism and prejudice to control their actions, for example, they obviously lack the motivation necessary to be effective communicators. Instead, individuals need to be committed to the entire communication process. For employees in a culturally diverse organisation to become competent intercultural communicators, they need to have positive feelings about the process of personal transformation, and have intentions to transform and act in a manner that reflects the desire to transform. It can, therefore, be concluded that motivation plays an important role as an intercultural communication enabler for employees to become competent intercultural communicators (Kiss, 2008; Samovar et al., 2012).

Knowledge

Knowledge relates to the cognitive aspect of intercultural communication competence advanced by Kim (2006). The *cognitive* aspect of intercultural communication competence refers to the process by which people acquire knowledge that allows them to function successfully and interact meaningfully with one another (Kim, 2002; Vevea, 2011). For someone to interact meaningfully across cultures requires a fund of knowledge about cultures – other people's and one's own culture – and the context and the norms of appropriateness that operate in specific cultures (Samovar et al., 2012). Without such knowledge, it is unlikely that people will be able to select behaviours that are appropriate and enable them to achieve intercultural communication objectives. Penceliah (2008) mentions that knowledge of culture and of fundamental principles of communication are essential propositions of intercultural

interactions. Therefore, if we would like to communicate effectively, it becomes necessary for us to know what culture is, how cultures vary and how culture affects behaviour. This highlights that the kinds of knowledge that are essential in intercultural communication include culture-general and culture-specific information (Kiss, 2008). For organisations, knowledge of different cultural perspectives gives employees a broader understanding that different cultures have different customs, standards, social norms and thought patterns, which is essential for people to become competent intercultural communicators. Knowledge about cultures is, therefore, considered an aspect that is likely to make employees more receptive to initiatives that are intended to make them become competent intercultural communicators.

Skills

Skills, in the context of this study, refer to skills required to communicate effectively with people of other cultures, which Kim (2006) refers to as the *behavioural* aspect of intercultural communication competence. Skills are displayed by intercultural effectiveness, which refers to the cultivation of communication skills to accomplish specific goals; this is the ability to recognise communication rules, meet the contextual requirements of those rules and recognise the rules in different contexts. The behavioural skills needed for reaching intercultural effectiveness include language ability, behavioural flexibility, interaction management, identity maintenance and relationship cultivation (Littlejohn & Foss, 2009). Skills are, therefore, the actual applications of specific acts that enable people to accomplish their intercultural communication competence goals; skills are goal directed, because they must be designed to accomplish something (Jandt, 2013; Samovar et al., 2012). Skills are needed to adapt to the rules of intercultural communication that are appropriate to organisational culture. Employees need to have the ability to recognise communication rules, meet the contextual requirements of those rules and recognise the rules in different contexts, as these are the skills needed for individuals to improve their intercultural communication competence (see Kim, 2006; Samovar et al., 2012). It is assumed that gaining skills in effective intercultural communication can minimise intercultural communication conflicts and make it possible for employees to become competent intercultural communicators.

Character

Character relates to the ability to understand, respect and appreciate cultural differences, and could be referred to as the sum total of a person's choices in an intercultural interaction, which Kim (2002) refers to as affective aspects of intercultural communication competence. The key is how someone acts out choices when they interact with people of other cultures, as these choices indicate character attributes, such as trustworthiness, integrity, honour, altruism, sincerity and goodwill. A valid measuring instrument of intercultural sensitivity, based on these elements, was developed by Littlejohn and Foss (2009). Littlejohn and Foss measure intercultural sensitivity by, amongst others, examining people's open-mindedness concerning the differences they encounter in other cultures, their flexibility concerning behaving in unfamiliar cultures, and understanding of different ways they can behave, depending on the environment in which they find themselves.

As far as intercultural communication in the context of an organisation is concerned, employees need to have the ability to be flexible and to speak the language/s of communication used in their respective organisations. As communication is interactive, an essential influence on its effectiveness is people's ability to understand, respect and appreciate culture varieties, including their relationships with others. Employees should continuously attempt to understand the ways communication varies across cultures, and apply these understandings to enhance relationships, despite differences (Samovar et al., 2012). So, managing cultural differences such that employees become aware of and become open-minded about character attributes that influence intercultural communication, has the likelihood of preparing employees to respond positively to endeavours that seek to improve their intercultural communication competences.

It is clear that the focus of the attributes advanced by both Kim (2006) and Samovar and colleagues (2012) can be referred to as intercultural communication enablers or co-requisites, which capture attributes employees require in order for them to improve their intercultural communication competence. Accordingly, the discussion in this section shows that employees in culturally diverse organisations require the following competences to become competent intercultural communicators and the ability to accommodate each other:

- The ability to understand, respect and appreciate cultural differences.
- The ability to change behaviour and act in a way consistent with the cultural environment in which people find themselves.
- Possession of requisite cognitive information about different cultures, including one's own.
- The desire to improve the ability to effectively communicate across cultures.

To sum up the discussion in this section, motivation, knowledge, skills and character are distinguished as intercultural communication competence enablers or co-requisites, which are important for employees in a culturally diverse organisation, to communicate meaningfully across cultures. Motivation is considered to be at the root of an employee's desire to improve intercultural communication competence. It is maintained by this study that, if an employee is not motivated to improve intercultural communication competence, the other three attributes do not really matter. The pivotal conclusion is that motivation and other enablers/co-requisites can improve intercultural communication competence, promote inclusivity and facilitate achievement of organisational success. Doing so requires culturally diverse organisations to invest in ensuring that employees are motivated to become competent intercultural communicators, and use motivation as the foundation upon which to base the other attributes.

Theories of Intercultural Communication Adaptation

The guiding theories of adaptation are regarded as a guiding principle in relation to intercultural communication. The purpose of this section is to explain the meaning, nature, and challenges of intercultural communication adaption, to help the researcher to understand and determine the importance of employees adapting to one another coming from different cultural

background and how this adaptation will assist them in promoting inclusivity amongst individuals.

Intercultural Adaptation Contextualised

It is essential to start by indicating that words, such as *assimilation*, *adjustment*, *acculturation,* and even *coping,* are used by different sources interchangeably to describe how individuals respond to their experiences of cultures other than their own, as all these terms refer to how people from one culture react to prolonged contact with those of another culture (Lustig, Koester, & Halualani, 2018). For Gudykunst (2005), intercultural adaptation is the process of change over time that takes place within individuals who have completed their primary socialisation process in one culture and then come into continuous and prolonged first-hand contact with another, unfamiliar culture. Intercultural adaptation is also considered as an expansion of one's worldview to include behaviour and values appropriate to the host or dominant culture (Bennett, 2005; Patel, Li, & Sooknanan, 2011). This perspective includes physical, biological and social changes in people who are in the process of adapting to a new environment. Lustig and colleagues (2018) and Kim (2006) define intercultural adaptation as the process by which people establish and maintain relatively stable, helpful and mutually shared relationships with others upon relocating to an unfamiliar setting.

Regarding how individuals adapt, Martin and Nakayama (2004) argue that characteristics, including age, gender, preparation level and expectations, can influence how well they adapt. Younger people may have an easier time adapting, because they are less fixed in their ideas, beliefs and identities. In comparison, older people may have more trouble adapting, because they are less flexible. In pursuit of assisting employees to respond to their experiences in cultures different to their own, organisations must do so with due consideration of the characteristics of all their employees, including recognising and acknowledging how each characteristic contributes to the manner in which individuals adapt to cultures that differ from their own.

The intercultural adaptation operational definition provided above was approached from a communication orientation, considering that enhancement of intercultural communication is the focus of the study. Consistent with the operational definition provided, and in spite of the culturally diverse nature of organisations, it is argued in this study that, from a communication point of reference, intercultural adaptation reduces cultural distance and increases intercultural communication competence. Central to the argument is acknowledging a need for employees in culturally diverse organisations to respond to their experiences in a manner conducive to them adapting to a new way of communicating and improve their intercultural communication competence.

Theories of Intercultural Communication Adaptation

The section will now move on to the analysis and contextualisation of theories that explain adaptation in the context of intercultural communication, to describe the way individuals respond to their experiences in cultures other than their own.

The Communication Adaptation Theory (CAT), Intercultural Adaptation Theory (IAT) and Co-Cultural Theory (CCT) are, for the purpose of this study, considered to be theories that explain adaptation in the context of intercultural communication. Theories of intercultural communication adaptation provide a wide range of frameworks aimed at describing the way in which employees at an organisation respond to their experiences of cultures not similar to theirs.

Communication Adaptation (Accommodation) Theory

The CAT begins with the socio-historical context of the interaction, including the relations between the groups having contact, and the social norms. The theory elaborates that the social environment in which individuals interact also affects their communication behaviour, which is a reflection of the extent of the influence the socio-historical context has on intercultural communication. At its foundational level, the CAT emphasises the cognitive and effective processes that are fundamental to speech convergence or divergence, which are linguistic moves to increase or decrease communication distance respectively. In terms of intercultural communication, individuals communicating across cultures use convergence and divergence strategies to signal their attitudes towards each other and their respective social groups. Convergence is a process in which individuals tend to adapt the other person's communication characteristics to reduce the social differences; it involves adjusting one's communicative behaviours to be similar to another's. Divergence contradicts the method of adaptation and relates to the social and nonverbal differences between people participating in an intercultural interaction; it refers to adjusting one's communicative behaviours to be more dissimilar to another's (Dragojevic, Gasiorek, & Giles, 2015).

In the context of organisations, the patterns of convergence indicate that, regardless of people's differences, it is practicable to enhance intercultural communication and achieve a focused and common manner of communicating across cultures. Achieving this requires culturally diverse organisations to maintain a balance that normalises the process that helps to reduce the uncertainty that results when cultures collide (Ayoko, Hartel & Callan, 2002; MacIntyre, 2019; Wiseman, 1995). To guide successful enhancement of intercultural communication, it is, therefore, a requirement for a culturally diverse organisation to strategically and continuously ensure that intercultural communication competence is improved such that collision of cultures could be avoided.

This component of the CAT relates to cases where intercultural communication is influenced by the communicators' accommodative orientation and tendencies, as an illustration, interpersonal or intergroup dynamics or a combination of the two (Ayoko et al., 2002; Giles & Ogay, 2007). Accordingly, employees' accommodative orientation and tendencies motivate their desire to improve intercultural communication competence. Employees enter intercultural interactions with personal attitudes (interpersonal) and social (intergroup) identities as factors that shape intercultural communication. Moreover, the attitudes of individuals are determined more by their immediate surroundings (immediate situation) than by the society within which they find themselves. Therefore, recognition of the impact on the features of the immediate

situation of employees is regarded essential for understanding the context within which enhancement of intercultural communication could be successful, as the extent and nature of adaptation depends on the influences of the immediate surroundings of people participating in intercultural communication (Giles & Ogay, 2007).

Socio-psychological states signify communicators' interpersonal orientation and serve as motivational aspects for adapting to the context of intercultural communication. MacIntyre (2019) contends that the motivational component was expanded, firstly, to incorporate the initial socio-psychological states of speakers, or the extent to which speakers are motivated to move towards each other at the outset of an interaction. Secondly, speaker strategies were reconceptualised because of addressee focus, or the way in which one speaker pays attention to the behaviours of another and, accordingly, adjust their behaviour in order to fit into the communication style of the new cultural environment. Thirdly, MacIntyre (2019) expanded the conceptualisation of reactions to interactions to speaker behaviour. Finally, the latter part of the CAT model was expanded to include an evaluation that interlocutors take away with them, which influences their future orientation to both the other person and other members of that person's group (MacIntyre, 2019). To enhance intercultural communication, it is necessary for culturally diverse organisations to embark on improving intercultural communication effectiveness initiatives that are premeditated by interpersonal and intergroup attitudes of their employees. It is reasoned in this study that doing so could contribute to internal relationships and promotion of a sense of belonging, and is more likely to make employees accommodate each other and adopt a uniform style of communicating. That, during intercultural interactions, individuals use specific communication accommodative strategies, particularly convergence and divergence.

A convergence approach is, in this study, suggested as the communication accommodative strategy culturally diverse organisations should use to move colleagues of different cultures towards each other, considering that its patterns reflect that, regardless of differences, it is practicable to achieve a focused and common manner of communicating. Furthermore, for culturally diverse organisations to successfully enhance intercultural communication, their social and historical contexts, and the cultural dynamics of the environment within which the organisations concerned operate (immediate situation), should form the basis of their intercultural communication enhancement framework.

Unlike CAT, which elaborates that socio-historic context and immediate situations influence intercultural communication, the discussion to follow focuses on IAT, a theory designed to describe a complex, long-term adaptation process in which stress serves as the necessary drive for individuals to adapt their communication behaviours, specifically for working towards the achievement of a common purpose (purpose-related encounters).

Intercultural Adaptation Theory

From a communication perceptive, the IAT suggests that, during intercultural interaction, participants who recognise themselves as being outside their environment will become

stressed, experience confusion, and as a result, practice ineffective communication. Through a long-term adaptation process, stress-adaptation and growth dynamic subside, as individuals achieve functional efficacy in interacting with the host environment. IAT holds that, in terms of communication, intercultural adaptation is a complex and long-term process, in which individuals go through a journey characterised by stress, before they become capable of communicating and functioning effectively in a culture other than the one they were originally socialised to. Some individuals struggle to cope with the feelings of inadequacy and frustration in the changed environment and this affects the way they communicate and function. When people enter an environment in which they no longer communicate and function effectively, they attempt to change through stress adaptation and growth. In this context, stress, then, serves as the necessary drive for people who find themselves in a new cultural environment, to adapt their original cultural habits. In the context of communication, IAT is, therefore, used to explain why stress serves as the necessary driver for individuals from different cultural backgrounds to adapt their communicative behaviours. From this perspective, stress serves as intercultural communication enabler or co-requisite, given that it motivates individuals who are strangers in a new cultural environment to improve their ability to effectively communicate across cultures (Haslberger; 2005; Kim, 2006).

Of central importance and relevance is that employees at the university communicate with each other for the purpose of working towards the achievement of a common vision and purpose guided by the slogan that the university is *A people's university that makes knowledge work*. University's vision is, therefore, a specific purpose that acts as the main guiding principle in relation to what the institution hopes to become. From the IAT point of reference, the university vision, therefore, serves as the specific purpose or main motive why all within the university, despite different cultural backgrounds, should adapt to one another in intercultural communication encounters.

In the context of this study, and consistent with the main insight acquired from this section, all people at the university, despite cultural differences, must adapt their behaviours such that they improve their intercultural communication competence and function effectively towards the achievement of that common vision and purpose.

The deduction from the discussion in this section is that, from the IAT standpoint, it is maintained that the degree of intercultural communication adaptation and effectiveness is achieved based on (1) the extent to which stress serves as the driver for employees to adapt their communicative behaviours and (2) a need for employees to adapt their communication behaviours with the aim of working towards the achievement of a particular common purpose. From the IAT standpoint, reduction of stress and unification of employees towards a common purpose should be utilised as intercultural communication enhancement contributing factors or intercultural communication competence enablers.

Co-Cultural Theory

In the context of CCT, co-cultural group members are individuals who are members of traditionally marginalised groups, and the theory is specifically helpful for understanding the manner in which co-cultural group members are impacted, and the strategies they use, during everyday communication with members of the dominant group. CCT offers a practical framework for identifying and examining non-dominant-group members' communicative experiences, as it describes the communication process of those individuals traditionally marginalised within dominant social structures. In the context of organisations, the theory, therefore, holds that the degree of intercultural communication effectiveness that is achieved is based on the value and importance of how employees who are marginalised communicate with those who have direct access to power (Orbe, 2017).

 Fundamentally, CCT provides a structure through which co-cultural group members negotiate attempts by others to render their voices muted within dominant societal structures. In the context of internal communication. The approach co-cultural members choose, therefore, determines the effectiveness of intercultural communication within an organisation (Orbe, 2017; Orbe & Roberts, 2012; Visagie, Linde, & Havenga, 2011).

An important aspect is the pursuit of enhanced intercultural communication, for which the institution needs an approach to communication that considers the perspective of protecting non-dominant groups from being marginalised by dominant groups. From a standpoint theory perspective, this can be achieved through inclusion of non-dominant-group members' cultural experiences in shaping the manner in which intercultural communication is enhanced such that intercultural communication is improved (as discussed in a paragraph above). This approach is more likely to contribute to internal relationships characterised by employee commitment – an imperative that was distinguished as one of goals and desired outcomes of internal communication.

To sum up the analysis and contextualisation of intercultural communication adaptation theories, namely, CAT, which is regarded as a communication accommodation theory and explains how socio-historic context influences intercultural communication; IAT, which explains how communicators from diverse cultural backgrounds adapt to each other in purpose-related communication encounters; and CCT, which emphasises intercultural communication interactions among underrepresented and dominant-group members of organisations. Overall, the analysis of intercultural communication adaptation theories assisted the researcher to gain a better understanding of how individuals respond to their experiences in other cultures during intercultural communication encounters; an understanding essential for organisations to have a grasp of how intercultural communication could be enhanced.

Methodology

Research Approach and Design

The study followed a qualitative approach and a case study design was used. Using a qualitative research approach allows researchers to describe, decode, translate, and come to terms with the meaning of naturally occurring phenomena in a social setting (Brynard, Hanekom, & Brynard, 2014; Leedy & Ormrod, 2015) and was preceded by the semi-structured interviews. For the purpose of this study, qualitative research is entailing the gathering and analysis of non-numerical data to comprehend ideas, viewpoints, or past observations. As a result, the qualitative method was applied to develop fresh study concepts or to obtain a thorough grasp of a problem (see Bhandari, 2020).

Instrument

The data was gathered through semi-structured interviews. A semi-structured interview is a type of qualitative research technique in which participants are given the chance to respond to a planned set of open-ended questions. The researcher was guided during the semi-structured interviews by a planned set of open-ended questions on an interview schedule based on theoretical concepts (see Maree, 2011:87). The pre-set questions served as a means of gathering data on the perspectives of experts in marketing, human resources development, employment equity, and diversity, as well as corporate affairs and transformation, with regard to methods of intercultural communication in the workplace. The goal of the semi-structured interviews was to get accurate and trustworthy information from the participants during discussions on the study's subject. The goal was always to gather detailed, descriptive data that would aid the researcher in comprehending the participants' social realities and level of expertise.

Participants

Ten experts from the departments in charge of transformation, employment equality and diversity, human resources development, corporate affairs, and marketing were among the participants, who were carefully chosen. Purposive sampling, according to Flick (2013), is employed in unique circumstances when participants are chosen based on their level of expertise in a given topic. Because they had in-depth knowledge of the issues the researcher was trying to investigate, professionals from the aforementioned departments were thus the ones the researcher focused on. These individuals were chosen based on their deep knowledge and comprehension of diversity management, training, and development: the manager in charge of human resources development (a black woman), the officer in charge of transformation, employment equity, and diversity (a black man), and the manager in charge of transformation, employment equity, and diversity (a black woman). Expert knowledge and understanding of communication dynamics led to the selection of the university spokesperson (a black woman), university brand manager (a white woman), deputy director of corporate affairs and marketing (a black man) and four staff members (two black men and one white

man) in charge of writing electronic the university's journal articles. Each participant possesses the necessary qualifications or has a wealth of experience in institutional communication, diversity management, and human resources development.

Data Analysis

Qualitative responses were analysed independently once all interviews had been conducted. Analysis was followed by interpretation of the responses sourced through semi-structured interviews for the purpose of arriving at informed conclusions. Consistent with Maree (2011:105), qualitative responses were analysed manually by transcribing all handwritten notes and audio-recorded interviews. Viewpoints provided by the ten sampled professionals regarding the university's approaches to intercultural communication were carefully read and constructs were identified accordingly.

Findings

Below the findings are elaborated according to the themes focused on in the study, namely, intercultural communication enablers, cultural elements and the stages of adaptation.

Intercultural Communication Enablers/Co-Requisites

Competent intercultural communicators are individuals who possess the desire to improve their intercultural communication abilities, who are in possession of requisite information about different cultures, have the ability to change their behaviour and act in a consistent way in each cultural environment they find themselves in, and have the ability to understand and appreciate cultural differences. As a result, organisations need to invest greater efforts in ensuring that employees are empowered to become competent intercultural communicators, as doing so has the potential to facilitate effective functioning of organisations.

Comments made by purposively selected professionals indicate that they acknowledged that there are conditions that contribute as enabling factors for employees to improve intercultural communication competence to promote inclusivity.

As an illustration, Participant 4 suggested enablers or co-requisites that are important for employees to become competent intercultural communicators:

> "One of the greatest weapons that you can give to employees is to make them feel that they matter; by so doing, you know that they will be motivated and encouraged. To make people feel welcome, make people feel that they matter, make people know that you have their back, and make people feel that they are recognised. All these aspects are essential to motivate and encourage people to become competent intercultural communicators". [P4]

Participant 5 offered the following conditions, which are aligned with the enablers that were identified by the analysis of the literature:

> "Employees should be empowered with skills to become competent intercultural communicators. People who know that they are skilled enough to communicate across cultures easily express themselves in all situations they find themselves. The university should also train employees regarding the primary language that is used for communication purposes." [P5]

Participant 10 gave a statement that is slightly different from what is argued about intercultural communication enablers; this participant commented as follows from a cultural integration and awareness viewpoint:

> "Cultural integration initiatives and awareness campaigns should also be conducted throughout the year. New employees should also be oriented to ensure that they understand that the institution they are joining is culturally diverse in nature and that there exists a need for them to familiarise themselves with the new ways of doing things. This approach could make them quickly form relationships and make social connections with ease. [P10]

The comments quoted above give substance to the theoretical argument that, for employees to become competent intercultural communicators, they require certain attributes and abilities. Motivation, encouragement, empowering people with skills, training employees, and presenting cultural integration initiatives and awareness campaigns are suggested as conditions that are likely to enable employees to improve intercultural communication competence. The conditions advanced by purposively selected professionals, specifically, motivation, skills, knowledge and character are aligned with the enablers as conditions that are likely to contribute to helping individuals become competent intercultural communicators. The above assertions are supported by (Kiss, 2008; Samovar et al., 2012), when they argue that motivation plays an important role as an intercultural communication enabler for employees to become competent intercultural communicators.

It is assumed that the submission regarding cultural integration initiatives and cultural awareness campaigns as intercultural communication enablers was triggered by an understanding that the two conditions are likely to equip employees with knowledge about different cultures that exist in the environment within which they operate, including their own culture.

To operationalise the findings related to intercultural communication enablers/co-requisites, managers at the university have the responsibility to distinguish enablers specific to the university, and to employ them in their purposeful endeavours to enhance intercultural communication.

Cultural Elements

Literature review findings show that cultural elements are contributing factors for effective intercultural communication and that they direct the manner in which individuals communicate across cultures. This assumption suggests that cultural elements play an important role in shaping and informing intercultural communication and that culturally diverse organisations should be conscious of cultural elements that are likely to influence their communication styles.

Furthermore, literature states that elements such as norms, values, beliefs, cultural symbols and stories and rituals are core elements that guide and assist us to shape intercultural communication. Strategic Plan (2014–2019) analysis findings point out aspects, such as integrity, respect, inclusion, honesty and dignity, are features distinguished as fundamentally imperative for shaping intercultural communication at the university. These elements the university should use as contributing factors in its efforts to enhance intercultural communication and to improve intercultural communication competence.

The responses sourced from purposively selected professionals reflect a certain level of familiarity with cultural elements, which is reproduced in the literature and the university's strategic and policy documents, including an understanding of the values the university ascribes to.

For instance, Participant 10 mentioned,

> "If you share beliefs, norms and values, chances are understanding each other during intercultural encounters is possible as these elements inform how people communicate. These elements make us to learn to understand each other during communication encounters. People who share beliefs, norms and values also tend to respect each other, maybe because it is a sign of belonging to same cultural background" [10].

Two other participants also indicated familiarity with the importance of cultural elements in shaping intercultural communication, and gave the following responses.

> "I would say respect, language and honesty. These are the basics of intercultural communication. Be honest and truthful to yourself and others". [P4]

> "For me, I think language, traditions, attitude, values, respect, behaviour, habits and the way we perceive things are the main cultural elements that influence the way we interact. One of the challenges that we face is that people hold on to what they believe in and do not want to change that for anything, they have a sense of entitlement". [P9]

The strategic and policy document analysis findings presented in Section 4.4 in relation to social culture being both a perceived and experienced reality point to a need for the university leadership to aggressively work to change the perspective to a reality that is experienced by all. Despite documented consciousness, strategic and policy document analysis findings and purposively selected professionals' responses overall demonstrate that cultural elements specific to the university are well documented and employees are familiar with the elements fundamentally necessary for shaping intercultural communication at the university. Beliefs, norms, language, values, respect, honesty, tradition, attitudes, habits and integrity are the aspects purposively selected professionals submitted as the elements they considered fundamentally necessary in intercultural encounters. Having a communication framework that is, amongst others, structured around the existing documented cultural elements that employees are familiar with, places the institution at an advantage, and makes it more likely the university will succeed in its efforts to improve intercultural communication effectiveness.

Stages of Adaptation

Purposively selected professionals referred to the following stages they believed individuals go through before they adapt and become competent intercultural communicators. Participant 7 said,

> "When employees find themselves within environments, they are not familiar with, at the beginning, they might find it strange not understanding what is required of them and might feel intimidated. Nevertheless, if the environment is conducive for them to adapt and there is a strategic way of integrating new employees to the new environment, overtime, they become more used to the new environment, accept the new situation, and no longer feel threatened by it. As soon as they accept that the situation is what it is, they eventually integrate and adapt to the new situation" [P7].

Participant 6 explained,

> "Largely, as a new employee, you go through the normal and basic three stages of change. Firstly, finding yourself in a new working place make sort of being frustrated by not knowing what is expected of you by everyone around you. Then you go into a stage where you rather try to form friendship and relate to fellow colleagues. The last stage is asking yourself as to what you do with what you know. How you progress through these stages is dependent on the kind of support you get from the institution. It is important for the university to device ways and means of ensuring that employees are taken by hand for them to navigate through these stages with easy" [P6].

Participant 1 said,

> "They start from a stage of fear and then they move on to a stage of slightly self-doubt. You fear and then you express your doubts, after which you are slightly self-actualised. Then, depending on the environment, you become comfortable and start

interacting with your colleagues. It is only after one start feeling comfortable that you slowly start feeling at home. This is then the stage at which you start adapting and get integrated in the new environment, including understanding the way the new colleagues communicate and do things in general" [P1].

Participant 8 said,

"I think they go through a whole lot of stages. Firstly, they become shocked because they do not know the environment. Depending on the attitudes of the individual employee, the second stage will be grouping, that is identifying yourself with specific individuals within the organisation. That is followed by acclimatising yourself with the way the group you identify with do things. Thereafter, you observe what other groups are like as compared to the group you identify with. Slowly you gel-in and start behaving exactly the same way as everyone else in general behaves, and that becomes the final stage where you then feel at home and start communication the way each employee is expected to" [P8].

Though there are differences regarding the specific stages identified in responses provided by purposively selected professionals, it is clear that they concur that employees go through different stages of adaptation before becoming competent intercultural communicators. Frustration, fear and self-doubt, finding it strange, feeling intimidated and feeling shocked are the experiences purposively selected professionals identified as those individuals go through during initial stages of their adaptation journey, namely, fascination and excitement, and anticipation stages of adaptation, and Lysgaard's honeymoon stage. Forming friendship and relating, self-actualisation and grouping, acclimatisation, gelling-in and feeling at home are experiences that relate to Lysgaard's recovery and integration stages, as are the acceptance, integration and adaptation stages.

Discussion of Findings

Determining whether intercultural communication fosters inclusion in varied organisations was the paper's goal. The results of the research thus demonstrated that the institution did not have a well-thought-out plan of action for intentionally promoting intercultural conversation. This was because the staff believed that there had been no systematic attempt to guarantee that intercultural communication was managed consistently and that the institution's communication strategy documents provided no direction on how to facilitate effective intercultural communication. This result is consistent with the Strategic Plan (2014–2019), which did not identify cultural diversity as a strategic goal or even mention the need to set up controls to direct the application of managing cultural diversity through improved intercultural communication.

The elements that are stated under findings coincide with what the literature asserts as guiding aspects that are essential for assisting to shape effective intercultural communication. The aspects staff submitted as elements necessary for informing intercultural encounters, namely,

integrity, respect, inclusion, dignity, beliefs, language, norms values, honesty, tradition, attitudes and habits are the cultural aspects from which the university should choose what it considers most relevant, and use these elements as contributing factors in its efforts to enhance intercultural communication. The university should also take advantage of having employees who acknowledge the content of documents that guide its strategic orientation, and use that as a path in its efforts to improve intercultural communication competence and move employees of the institution towards inclusivity.

The findings also indicated that staff members thought management's goals for improving the efficacy of cross-cultural communication should be governed by a policy statement. They think that everyone at the university will be able to handle these challenges in a formal and consistent manner by embracing a formal and consistent approach to intercultural communication. According to the staff, the organisation needs an operational plan that outlines how intercultural communication can be used to unite staff members in pursuit of a single objective. The results of this study corroborate earlier research by Mmope (2016), who looked at the motivations behind a conceptual framework for integrated intercultural staff communication for line management of changed universities.

The findings of this paper also revealed that employees were of the view that the management of cultural diversity and communication are essential elements to enhance intercultural communication so as to assist the university to develop and implement intercultural communication such that employees from various cultural backgrounds could improve intercultural communication competence. This result is in line with Gumede's (2016) investigation into the existence of cultural diversity, whether it necessitates an organisational response, whether managing cultural diversity affects performance, and, ultimately, what approaches, techniques, and resources the Engen Refinery should employ to manage its culturally diverse workforce. Even though the study found no problems with intercultural communication, it did highlight the significance of initiating team-building exercises and social events to foster greater employee interaction, putting cultural diversity programmes and policies into place, and reorganising work teams to foster greater multiculturalism.

The study's conclusions also showed how important it is to recognise and comprehend the phases people go through while trying to adjust to a new work environment. This result is consistent with research conducted by Nhlapo (2013), who examined intercultural communication in information systems development teams across many businesses in the South African province of Gauteng. The study came to the conclusion that personality and culture could have an impact on how well people communicate. The study's conclusions also showed how important it is to recognise and comprehend the phases people go through while trying to adjust to a new work environment. This result is consistent with research conducted by Nhlapo (2013), who examined intercultural communication in information systems development teams across many businesses in the South African province of Gauteng. The study came to the conclusion that personality and culture could have an impact on how well people communicate. The study's conclusions also showed how important it is to recognise

and comprehend the phases people go through while trying to adjust to a new work environment.

The results demonstrate that the university values and acknowledges its cultural variety. As workplace diversity dimensions that reflect the shape and influence of the university as an institution of higher learning, the uniqueness of each individual, cultural diversity training, institutional culture recognition, inclusion culture creation, and multilingualism promotion are all acknowledged. For this reason, they have been prioritised in the aforementioned strategic and policy documents. The results align with the literature review's conclusion, which is that an organisation can begin to systematically improve intercultural communication by acknowledging and comprehending the culturally diverse nature of modern organisations thereby improving inclusivity amongst employees.

Conclusion

The goal of this paper was to explore the extent to which intercultural communication contributes in promoting inclusivity in diverse organisations. The study suggests an intercultural communication strategy that could lead a culturally diverse organisation down a path of intercultural development that could ultimately lead to improved intercultural communication skills and a cohesive workforce. Complementary findings from multiple sources helped the researcher to draw holistic conclusions that are relevant for the development of the plan, which is intended to be used as a tool for the university and other similar organisations to become resilient in their pursuit of improving intercultural communication as a strategic and continuous priority.

The paper's findings also show that intercultural communication variables have positive relationships. This means that all staff members need to adjust to communication styles that improve intercultural communication as a whole if diverse organisations are to strategically and continuously enhance intercultural communication and improve intercultural communication competence. The finding that intercultural communication adaptation has a higher influence on other intercultural communication characteristics leads to the conclusion that intercultural communication adaptation is a factor that is essential for varied organisations to promote inclusion.

This study closed the gap and added to the volume of research that has been undertaken, and to the base of knowledge regarding enhancement of intercultural communication with the specific purpose of improving intercultural communication competence and the promotion of inclusivity, unifying employees towards a common purpose and achieving organisational success, as ultimate outcomes.

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Student Emotions and Engagement: Enacting Humanizing Pedagogy in Higher Education

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Abstract

Student engagement in higher education has been a topic of discussion for decades, as student engagement directly indexes student retention, achievement, and career development. While previous research emphasizes the importance of effective teaching practices to increase student engagement in higher education, faculty and staff report institutional and professional challenges to increase interactions with students. This study highlights cases of successful teacher-student relationships that engendered positive student emotions and advanced student engagement in higher education settings. Using the thank-you note messages provided by students in a Thank-a-Teacher initiative, data were analyzed qualitatively through the theoretical principles of humanizing pedagogy (del Carmen Salazar, 2013). The findings indicate that the enactment of humanizing pedagogy through conveying emotions and forming positive teacher-student relationships made a meaningful impact on student motivation, engagement, and growth. Implications for the transformation and liberation of higher education through affect-driven pedagogy are discussed.

Keywords: gratitude, higher education, humanizing pedagogy, student engagement, teacher-student relationship

Over three decades, student engagement in higher education institutions has been frequently pointed out as one of the main factors in predicting student success and retention rate (Cassidy & Eachus, 2000; Grier-Reed et al., 2012; Maguire et al., 2017). Reports show that between 20 and 30% of first-year students fail to progress to their second year, and only about 64% graduate with degrees within six years (NCES, 2022; Tinto, 2010). Given the COVID-19 pandemic and the emergency remote learning students were forced into, concerns about student engagement have intensified. The quality of student and instructor interaction in higher education classrooms is closely related to student engagement, which is worthy of further investigation.

A high-quality teacher-student relationship (TSR) and effective teaching practices are indicators of elevated student involvement and engagement in higher education. Positive emotions play a crucial role in these interactions between faculty and students and extend to student success. Depending on how the student felt in these interactions, students' satisfaction and views of the class, the institution, or the learning experience could change (White, 2013). Thus, in student engagement theories, the emotional aspect is highlighted as a component that influences students' overall engagement and achievement (Bryson, 2014; Kahu, 2013; Kahu & Nelson, 2018). In particular, increasing student diversity in U.S. higher education institutions calls for high-quality TSR and engagement to provide equitable academic opportunities for all students. In today's diverse higher education contexts, paying attention to and promoting positive student emotions could index students' self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, which in turn, contributes to building a more inclusive campus environment (Lubit & Lubit, 2019).

In this study, we examine TSR in student comment data retrieved from a Thank-a-Teacher initiative to gain insights into the pedagogical approaches that fostered positive student emotions in higher education classrooms. Specifically, we focus on addressing the following questions: (a) How do students perceive higher education teachers' approach to teaching and TSR? and (b) How does TSR positively influence student emotions and engagement?

Literature Review

Background

Previous research stated that positive emotions and TSR have notable benefits for students. Positive emotions lead to student satisfaction, learning performance, creativity, social integration, resilience, and coping mechanisms (Maguire et al., 2017; White, 2013; Xerri et al., 2018). Students who reported positive relationships with peers and instructional staff showed higher levels of emotional and cognitive engagement, thus, developing a sense of belonging (Maguire et al., 2017; Pedler et al., 2022). Unarguably, TSR is proven to promote positive emotions leading to emotional and cognitive engagements.

Over a decade of research demonstrated the importance of TSR both inside and outside of the classroom and shed light on practices that bring about positive effects. In terms of interactions

inside the classroom, student-centered pedagogies, such as active learning strategies, promoted instructor-student contact and enhanced students' sense of belonging (Fisher & Machirori, 2021; Thomas, 2012). Other classroom practices, such as learning and using students' names, providing timely and constructive feedback, and disclosing instructors' own experiences, contributed to authentic TSR, leading to students' academic success (Cuseo, 2018; Ingraham et al., 2018; Kim & Sax, 2014).

Interactions outside of the classroom, such as informal mentoring, making personal connections, providing emotional support, showing mutual respect, keeping the line of communication open, and advising students, showed positive effects on student's academic success, retention, and sense of belonging (Cole & Griffin, 2013; Estepp et al., 2017; Guzzardo et al., 2021; Hagenauer & Volet, 2014). Furthermore, positive instructor-student interactions made an impact on particular student populations, such as commuters, first-generation, low-income, and at-risk students, by enriching academic development, success, and integration into college (Dwyer, 2017; Fuentes et al., 2014; Guzzardo et al., 2021).

Research suggests a myriad of benefits of promoting positive student emotions and instructor-student interactions in higher education classrooms. Positive emotions of gratitude were evident in high-quality TSR, where instructors cultivated an ethos of care and respect for students (Grantham et al., 2015; Hagenauer et al., 2023). However, the factors that contributed to positive emotions and interactions remain under-investigated, especially concerning the factors that could benefit students amid the COVID-19 pandemic that forced students into a large-scale remote learning environment (Martin & Bolliger, 2018). In this study, we utilize a critical lens, humanizing pedagogy, to examine the positive effects of TSR and interactions at a four-year research-intensive higher education institution.

Humanizing Pedagogy

Grounded in Freirean philosophy, *humanism* in humanizing pedagogy focuses on the cognitive capacity of humans to develop full humanity through personal and collective self-actualization (Dale & Hyslop-Margison, 2010). Paulo Freire's humanist approach evolved into influential philosophies and conceptualization of educational approaches, including liberalism, Marxism, phenomenology, progressive education, feminism, and critical race theory (Schugurensky, 2011). As Freire (1970) emphasized, teaching is eminently political and should be treated as a means to emancipation, preparing students for self-managed life. Thus, learning is no longer viewed as a transmission or receiving of knowledge, but rather a practice of empowerment.

Previous research highlighted the importance and influence of humanizing pedagogy in higher education settings. Specifically, studies emphasized humanizing pedagogy leading to stronger TSR established in online settings, higher student engagement, equitable access to higher education, and students developing critical thinking skills (Gleason, 2021; Mino, 2020; Olszewska et al., 2023; Pacansky-Brock et al., 2021). In the context of U.S. higher education, especially during the COVID-19 pandemic, such humanistic philosophies and humanizing pedagogical approaches carry more weight as the heart of humanizing pedagogy lies in the

involvement of students in learning, paying attention to emotions, and respecting personal histories.

In a proposed framework for TSR, Cox (2011) highlighted the importance of interactions that humanize teachers and students. Humanizing pedagogy emerged as an apt lens to uncover teachers' approaches and practices that humanized the learning experience for students. Inspired by Freire's conceptualization of humanizing pedagogy, del Carmen Salazar (2013) put forth efforts to reinvent the principles and practices of humanizing pedagogy by outlining five theoretical principles and ten pedagogical principles in practice.

Through a review and synthesis of scholarship across the globe, del Carmen Salazar (2013, p. 128) proposed the following five tenets as the guiding principles to apply Freire's pedagogical philosophies in the context of today's education:

1. The full development of the person is essential for humanization.
2. To deny someone else's humanization is also to deny one's own.
3. The journey for humanization is an individual and collective endeavor toward critical consciousness.
4. Critical reflection and action can transform structures that impede our own and others' humanness, thus facilitating liberation for all.
5. Educators are responsible for promoting a more fully human world through their pedagogical principles and practices.

Acknowledging the challenge and complexity of applying such a philosophical approach, ten principles in the practice of humanizing pedagogy were introduced through a synthesis of research and application from the past four decades.
In the description of the fifth tenet, del Carmen Salazar (2013, p. 138) unpacked the pedagogical practices in pursuit of promoting a humanizing pedagogy. The ten principles and practices of humanizing pedagogy are as follows:

1. The reality of the learner is crucial.
2. Critical consciousness is imperative for students and educators.
3. Students' socio-cultural resources are valued and extended.
4. Content is meaningful and relevant to students' lives.
5. Students' prior knowledge is linked to new learning.
6. Trusting and caring relationships advance the pursuit of humanization.
7. Mainstream knowledge and discourse styles matter.
8. Students will achieve through their academic, intellectual, and social abilities.
9. Student empowerment requires the use of learning strategies.
10. Challenging inequity in the educational system can promote transformation.

The foundational idea grounded in humanizing pedagogy is respecting the realities of students' and teachers' lives (del Carmen Salazar, 2013). Aligned with the motivation and values that inspired the Thank-a-Teacher initiative, which provided the data sources we analyze in this

study, a holistic understanding and interpretation of students' and teachers' lives are crucial to transforming the learning spaces in higher education. Thus, the principles and practices of humanizing pedagogy were an ideal theoretical framework for this study to holistically interpret the nature of the interactions between students and higher education teachers.

Research Methodology

Data Collection

The study was conducted by a faculty professional development center at a four-year research-intensive state university in the United States. The data sources were collected from a Thank-a-Teacher program, a university-wide initiative launched by the center in the spring of 2021. The data for this study were collected during the spring semester of 2022, the second year of the program's existence.

The purpose of the Thank-a-Teacher initiative is to offer students an avenue to express their gratitude and write a thank-you note to any educator or staff member who made a difference in their learning experience. This initiative is intended to acknowledge faculty and staff for their hard work with students–whether they are teaching a course, advising, coaching, or simply listening and providing encouragement. An email through campus announcement was sent out to all full-time and part-time students enrolled in spring 2022. For four weeks, from March 7 to April 4, students could complete a form online. The online thank-you notes were collected using a simple electronic template developed using Qualtrics XM™. Handwritten notes completed by students in person on campus were also collected. To collect the handwritten thank-you notes, staff and student assistants set up tables with thank-you cards for approximately four hours a day, twice a week, for the duration of two weeks.

Both electronic and handwritten thank-you notes were collected from students. In the spring of 2022, a total of 559 completed responses (376 online notes and 183 handwritten notes) were collected. A letter of thanks from the director of the center accompanied either a printout of the electronic notes or the handwritten notes. These were then distributed to the corresponding faculty or staff through the university mailing system. Among the 559 collected responses, the handwritten notes were transcribed electronically and were compiled with the online responses for analysis. Messages that contained a simple "thank you" apropos without other elements to analyze were discarded from the analysis. A total of 448 thank-you note messages were analyzed in this study.

Data Analysis

A qualitative thematic analysis was employed to analyze students' thank-you note messages. Using Maguire and Delahunt's (2017) steps for a theory-based thematic analysis, the data were analyzed in the following six phases: (1) becoming familiar with the data; (2) generating initial theory-based codes; (3) searching for themes; (4) reviewing themes; (5) defining themes; and (6) writing-up. Applying the prominent work of Braun and Clarke's (2006) thematic analysis

framework, Maguire and Delahunt offered explicit steps and suggestions for analyzing qualitative data that helped capture the patterns and themes of the data.

Once the research team completed the initial reading to become familiar with the data, a theory-based initial coding process took place. The data were initially coded using the principles and practices of humanizing pedagogy (del Carmen Salazar, 2013). Through a comprehensive coding cycle and discussion, several categories and themes emerged: (a) forming trusting and caring relationships, (b) providing mentorship and one-on-one support; (c) commitment and passion to teaching the content, (d) providing meaningful content, and (e) engendering positive emotions. Based on these sub-themes, similar themes or categories were identified or merged. As these themes were defined, a final cycle of coding took place to create four major themes presented in the findings.

Findings

Four major themes emerged from the data analysis: (a) humanizing the teacher, (b) humanizing the student, (c) humanizing the course content, and (d) practicing humanizing pedagogy. While many comments provided general insights into the positive emotions the instructors or the course engendered, some valuable insights are presented in the following sections.

Humanizing the Teacher

The most significant theme that stood out in data analysis was the students' appreciation expressed toward the teachers' care, kindness, support, and 'humanness.' Principles in humanizing pedagogy correspond to the literature and research concerning caring education and pedagogy for diverse students, such as practicing active listening, respect, trust, and compassion toward the student (Cammarota & Romero, 2006; del Carmen Salazar, 2013; Gay, 2018). Many messages from students expressed gratitude toward the humanization of the teacher as the students were able to receive care, trust, and compassion and forge a meaningful relationship with their teachers.

Communicating Care

Teachers' personal attention, care, and kindness were appreciated by many students. Sometimes, it was the teachers' approachable personality and availability to help the students that made an impact. Other times, the sense of belonging and the feeling of someone's care were significant to students' overall college experience. From the teacher's care and attention, many students formed long-term relationships and shared more than academic matters.

> "I wanted to thank you for making my last few semesters here worthwhile. I enjoyed your class a lot. It's hard to find a professor like you, and I'm glad I met you. You're so humble and always considerate of your students. You genuinely care about each and every one of us, and that is one of your best qualities…I hope you know how much I

appreciate that, and hope we get to stay in touch throughout the years. I wish to learn more from you" (Online_Msg 191).

Whether the relationship formed between the student and teacher lasted a semester or longer than a single semester, the interactions were impactful enough to have changed students' college lives in many ways.

In another case, one student's message expressed appreciation for the teacher's extended availability and the impact on the student's personal life.

> "I would like to take a moment to thank you for all the countless hours you have spent with me. You have been a personal mentor to me. Thank you for guiding me since last year. Your guidance really plays a huge role in shaping my personality and shaping my future. You supported and guided me when I was going through past trauma. Many people told me to just get over it, but you suggested taking the necessary steps to get out of the trauma. I feel so blessed and grateful to you for all the help you have provided me" (Online_Msg154).

During the course of a few months, the student found someone to confide in with difficult personal issues. Because of the teacher's compassion and guidance, the student also described developing coping mechanisms to help with traumas and personal difficulties. Similarly, another student's message described how helpful the relationship was at a critical time of transition in college.

> "When I first came here, I was scared and didn't feel like I belonged. And though it wasn't serious before, I was a bit depressed and started to feel worthless. But things got better when I met you during class…helped me get through my first semester here. You always greeted me every time I came to class and…you called my name out loud…I was able to open up to the class a lot more and crack some pretty bad jokes along the way. I felt safe in your class. I felt heard, loved, and finally felt like I actually belonged here…I got through my first semester here and was able to fight some personal issues, all thanks to you" (Online_Msg 190).

Numerous student messages reflect the impact of teachers' care on students' personal lives. The teachers' close attention, such as remembering students' names, support outside of the classroom, and availability to actively listen contributed to students feeling safe and a part of a larger community in college to overcome challenges and barriers.

Being a Mentor and Role Model

To some students, it was meaningful to form a relationship beyond the traditional TSR. Students expressed their admiration toward teachers who acted as role models in life and an inspiration to career pursuits. Also, many students showed gratitude toward teachers who provided mentorship in their overall college lives—thus preparing for a self-managed life.

Students' messages included the inspiration given by their teachers in various career paths. One student's comment discussed how the long-term relationship has inspired and shaped the student's future.

> "Someone who has been an inspiration and an individual who I look up to on a daily basis is Dr. S. I have had the opportunity to work with him for the past four years and to say that I've learned just a few things is a major understatement. He has taught me so much over the past few years and has been there every step of the way for my future. Even though this is my last semester at SBU I know I will never forget the times we spent together in labs. Thank you" (Card_Msg 108).

The teachers' support, guidance, and advice in and out of the classroom have impacted students' future goals and aspirations. Many students also appreciated the teachers' mentorship, which often lasted more than a single semester. Students viewed mentorship differently, but these mentoring relationships commonly influenced students long-term.

> "I want to thank you for seeing something in me during my very first semester here that has helped me completely transform over the last 2 years. My whole life, I was a shy, quiet kid who was afraid to speak in class and afraid to go after opportunities. Since you selected me to be a fellow in Fall 2020, I have gone on to be offered every position I've gone after…I appreciate the way that you took a special interest in me and equally cared deeply about all of the scholars' success. It is such a great quality to have, and I'm so glad I can call you not only my mentor but also my friend" (Online_Msg 132).

The mentorship of uplifting students, providing guidance in school and in life, and the continuous support encouraged students to form long-term, meaningful relationships with teachers. Furthermore, students' higher engagement, passion, and accomplishments were often indicators of a successful mentoring relationship.

The trusting and caring relationship formed between students and teachers had long-lasting effects on students' emotional states, college life, future aspirations, and personal or academic accomplishments. Because teachers showed how much they cared or extended their interaction beyond the boundaries of the classroom, students were able to see themselves and their futures in a new light. Students perceived teachers as mentors, role models, friends, or someone they could confide in rather than an authority figure.

Humanizing the Student

Aligned with the first principle of a humanizing pedagogy, teachers' efforts of advocating for the full development of a person were appreciated by many students. Students commented on the support and encouragement from the teachers beyond the course content, such as developing life skills. As teachers humanized themselves, they also made an impact by inspiring students and facilitating students' holistic development as empowered humans.

Developing Life Skills

Students acknowledged the various roles teachers played in their lives to develop co-curricular skills. Some skills students valued were leadership skills, time management skills, communication skills, and elevated self-esteem as a result of the interactions with their teachers.

Particularly during the COVID-19 pandemic, students struggled with the transition from in-person to online instruction, social networking, and time management. One student discussed how the teacher bridged these gaps and helped the student be more confident overall.

> "I came to the US in search of better education. I've seen power dominance by many teachers in my country, which felt so wrong! As I came to the US during COVID…I realized that it's hard to communicate with teachers online…even though my course was asynchronous, Professor K successfully managed to bridge the gap. I communicated with her throughout the semester, received feedback, and talked about my confusion during office hours…I also made my first college friend because of this class…I want to thank you for being such an amazing teacher and motivating me to be a better writer, boosting my confidence, and making a huge impact in my life!" (Online_Msg 82).

Another student described how the teacher's care and support boosted the student's self-esteem to feel more confident about choosing future career paths (Online_Msg 15). In addition to teaching the content in class, teachers helped and supported students in developing transferable skills to be successful in life after college.

Authentic learning experiences were appreciated despite the challenges of remote learning. Furthermore, given the unique challenges students face during the pandemic, the student was grateful for learning additional skills, such as time management and organizational skills.

> "I want to thank you for guiding me during my first real step into the filmmaking process. This is something I'm really looking to pursue, and COVID made it difficult to seek out any opportunities. I was worried about whether or not I'd be able to get any practice. But you helped with not only that but also organizing and my time management skills, which is something I really needed" (Online_Msg 7).

In many cases, students reported a more positive attitude toward their teachers because of the transformative experience they had as a result of the TSR. Beyond students' expectations, students walked out of their classes with more than a simple grade or knowledge of the subject matter. Instead of positioning students as recipients where they can deposit knowledge, teachers went beyond the banking model of teaching to promote students' holistic development and position them as co-creators of knowledge in the learning process.

Inspiring Future Professionals

Aligned with the aspect of humanizing the teacher as a mentor and role model, students described meaningful experiences with teachers that inspired them to pursue a career path or a field of study. Also, many student comments indicated how instructors sparked a new interest in certain fields or motivated students to continue on a path despite the barriers they encountered. In addition to facilitating a caring relationship, teachers acknowledged students' reality, resources, and skills to inspire and guide them.

Teachers' passion communicated through the course inspired students to rethink their future paths and interests. One student described how the teacher's care and passion contributed to the student's new interest in anthropology.

> "Thank you so much for introducing me to a completely new field that I hadn't previously considered and effectively changing my educational trajectory. You are a hub of resources and you help students find their passion. Thank you so much for all of the opportunities that you have shown me and being a passionate instructor who deeply cares for their subject" (Online_Msg 225).

Instead of simply depositing knowledge in students, many teachers modeled a teaching practice that encouraged students to see their learning as an opportunity for transformation and growth. Students appreciated teachers who viewed their academic endeavors as a part of a pathway toward success in their lives. Other student messages reflected the influence teachers had on their future career path and passion in various professional pursuits such as filmmaking (Card_Msg 72), literacy (Card_Msg 68), or social work (Card_Msg 134).

Another student's message indicated similar appreciation toward a teacher who shared more than course knowledge with the student.

> "Dr. F, I just want to say thank you for always sharing all the rich knowledge with me and other students. I especially enjoyed being your undergraduate research assistant because the process of doing research helped me discover myself" (Card_Msg 136).

A humanizing pedagogy focuses on students' resources and incorporates those resources into relevant learning experiences (Fránquiz & Salazar, 2004; Huerta, 2011). The practical opportunities to work closely with the teacher as a research assistant influenced the student's development to find focus in their academic orientation and promoted personal growth.

Student messages included gratitude toward teachers for acknowledging them as an individual, not just one of many students in the class. The impact that lasted beyond one semester or beyond the boundary of the classroom created these positive emotions to appreciate TSR. Students' resources and experiences were valued, and students were treated as human beings who needed nurturing and growth beyond the classroom, which many teachers were able to instill through their interactions with the students.

Humanizing the Course Content

The teaching and learning strategies in the courses made a difference in students' levels of engagement and commitment in class. The instructional model that teaches effective learning strategies and enables students' self-assessment in humanizing pedagogy empowers students (Bartolomé, 1994). Many students mentioned their impression of teachers' commitment to teaching the course content. Furthermore, the manner in which the course content was delivered encouraged students to participate in the class.

Commitment to the Course

Many students described how impressed they were with the teachers' passion, commitment, knowledge, and expertise. Demonstrating both an affective and intellectual drive toward the content can contribute to students' motivation and interest in the course (Olszewska et al., 2021). It was evident in students' comments that teachers' personal commitment to the course content motivated students in many ways.

For instance, one student's message commented on the teacher's passion translated into positive energy throughout the course. This helped the student ease into the course and develop as much passion as the teacher had demonstrated in class.

> "Thank you, Professor S, for always going the extra mile for all of your students! Your passion and excitement for the courses you teach help keep class entertaining and I really appreciate the energy you bring to each class. Coming into PA school, I was definitely very nervous, but after meeting you for the first time…I felt so welcomed. I am so fortunate to have you as an advisor and professor. You are truly amazing and you are so appreciated!" (Online_Msg 92).

Passion and commitment to the course were communicated by the additional effort teachers put into the course and the students. This excitement, joy, and positive energy were received by students, who also found it helpful to learn in a space full of positive emotions.

Student messages commonly indicated teachers' commitment by mentioning how the teacher went above and beyond common teaching practices or the students' expectations. One student described how such efforts were shown in the class instruction.

> "Thank you for the many wonderful activities you do for students, for the dissemination of knowledge, and for the encouragement of the pursuit of knowledge. You go above and beyond your roles to support students, and from personal experiences with you, I am definitely grateful. I hope our paths will cross again sometime in the future" (Online_Msg 261).

The teaching method of using activity-based learning, encouraging students, and communicating passion for the course content translated into motivating students in their

academic journey. Because the teachers modeled such dedication and commitment, students were encouraged to pursue a similar path and feel excited about the subject matter, which brought joy to the classroom. Interconnected with the humanization of teachers and students, the humanization of content occurred with the teachers' extended availability and support for the students.

Making Course Content Meaningful

The manner in which the course content was taught, especially in challenging courses or topics, made an impression on students. Inspired by the teachers' passion and commitment to the field, there were more efforts dedicated to ensuring students' learning. Teachers' clear explanations, breaking down the concepts, and providing multiple examples were all efforts to make the course content more meaningful and helpful to students.

Students expressed appreciation and admiration toward the depth of knowledge reflected in the teachers' simple and clear explanations to help students easily understand the course material.

> "Thank you for being a great instructor. During the online sessions, you helped us out so much with teaching and doing labs with us. I thought that you conveyed the information very well and had a great depth of knowledge of electronics and manufacturing…The videos that we did were a great project for helping us understand the processes deeper. Thank you for teaching us and being very helpful when we didn't fully understand the topics" (Online_Msg 219).

In particular, students had positive feedback about teachers who made it easier for them to understand and grasp the material. The teachers' willingness to help or dedication to making the content comprehensible was evident in their enthusiasm toward the subject matter.

One student described how the teacher's dedication was shown in the level of enthusiasm, time spent explaining difficult concepts, and the amount of effort invested in creating an enjoyable learning environment.

> "Of all my classes, I look forward the most to attending your lectures because of the enthusiasm that you bring to the subject. You explain the topics very clearly and check in with us along the way to make sure we understand. I truly appreciate the effort that you put in to make this class as effective and enjoyable as possible, as well as your attention to making the subject as appealing and relevant for us as possible by connecting what we're learning to biological concepts" (Online_Msg 192).

Many students found it helpful when the course material made sense to them as they advanced in their academic program. A similar comment was made by a student illustrating how a particular prerequisite class helped in the following clinical field experience.

> "Thank you for being a great professor! And teaching us the best social work practices! I love hearing your stories and applying them to my own practice" (Card_Msg 141).

Sometimes, the content became relevant immediately as students made connections to real-life situations. Other times, the course content was deemed helpful because students were able to perform well in advanced-level courses. Teachers' passion informed their effort to provide a course curriculum that was meaningful, relevant, practical, and helpful for the students. Teachers also dedicated their time and effort to creating meaningful course content. These efforts of humanizing the course content were noticed and appreciated by students.

Practicing Humanizing Pedagogy

Humanization of pedagogy, in essence, is rejecting dehumanization in education. In the second principle of a humanizing pedagogy, del Carmen Salazar (2013) stresses how rote memorization and skill-and-drill practices perpetuate dehumanization. Thus, moving beyond the banking model and promoting critical reflection is imperative to transformation. Students appreciated teachers' efforts to incorporate innovative pedagogical practices, and a few students even elaborated on the new perspectives they gained through the course.

Moving Beyond the Banking Model

Instead of delivering long lectures, teachers incorporated pedagogical practices that would challenge the traditional banking concept in education, which refers to perceiving students as storing deposits that need receiving and filling (Freire, 1970). Many students illustrated the positive experiences they had with teachers by engaging in activities that empowered them as knowledge creators and learners.

One student highlighted the use of the Socratic discussion method in a class where the student found it enjoyable to participate.

> "Your course was always engaging and informative. I loved the Socratic discussions and the ideas you shared. Though there are some (very few) things we don't agree on, I always loved the discussion" (Online_Msg 91).

The Socratic style discussion, a formal open-ended discussion format, facilitated higher engagement from students, which is also known to enhance TSR (Fisher & Machirori, 2021). Such an alternative instructional format engaged students to have ownership of their own learning and, thus, empowered them as active participants and creators of knowledge.

Students were able to assess their own progress in learning and described how certain activities or strategies in class helped them learn better. One student recognized that the association with emotions through active recall sessions helped retain information.

"I love how you make the concept stick with us through active recall and create emotional attachment (cause there's a reason why you do that, that's how memory works!). Additionally, you also challenge our critical thinking skills to be good clinicians with "not so simple" materials and the up-to-date information that keeps us up at night" (Online_Msg 94).

Because the learning process actively involved the students instead of the teacher-centered approach, the student also showed appreciation for grappling with more complex materials in class. These opportunities helped the student think more deeply and critically about the current issues related to the subject matter.

Another student described how student-centered active learning strategies motivated the student to participate in class and engage in coursework.

"Thank you for making informatics much more interesting than it really is! Your energy and humor is contagious and there was never a boring day in class. This made it so much easier to leave a long day at work and come to class…I really enjoyed the debate project. Never once did the assignments feel like "work." Honestly, this was the best way to learn and retain information" (Online_Msg 17).

Through the experience of actively participating and engaging in the learning process, students realized the value of active learning. Many students found out that learning is more effective when it is enjoyable and includes the elements of students' true involvement. Contrary to the dehumanizing banking models, these learning methods encouraged students' active participation in class, which in turn, facilitated higher student engagement in overall learning.

Providing New Perspectives

Some students specifically described the transformative experiences they had with the teachers. These experiences helped students gain new perspectives, develop critical consciousness, and rethink inequity in their respective fields. While only a few student comments elaborated on these experiences, these were indicative of the level of impacts teachers made on students, as the student comments suggest future-oriented critical consciousness.

One student's message described how the course offered new perspectives concerning environmental issues. By rethinking items used in human's daily lives, the student gained understanding and new insights toward health and the environment.

"This class was an eye-opener for me. Before taking this class, I was always thinking about the impact of all the chemicals on our lives but I never realized how close to home those issues were. The fact that I was in my senior year and I was so ignorant about…the environmental issues plaguing our planet shows that something was missing from my education, and this class was the lighter to my deep and passionate

desire to fight for the health of our environment against human greed for money and power" (Online_Msg 115).

The impact made by the teacher encouraged the student to take action, as the student described, to "fight for the health of our environment." Similarly, another student explained how such a transformative experience motivated the student to raise awareness among friends and family.

> "I have reflected back on your class…offered us new perspectives on race, gender, bodies, and people that I had never heard before. Your ability to provide us with the knowledge for higher-level concepts in an introductory course was phenomenal. I…always felt encouraged to ask questions. As my knowledge and understanding have grown, I have tried to apply the techniques I observed from you to further spread my knowledge. Educating friends and family members on intricate social interactions is one of my favorite activities, and you gave me the tools and empowerment to do that successfully" (Online_Msg 35).

Teachers' efforts to help students develop critical thinking and critical consciousness were reflected in students' messages. Students appreciated the transformative experience that ignited their passion, prompted their interest, and provided them with new insights to reevaluate their surroundings that perpetuate inequity and oppressive systems.

Students also demonstrated their abilities to make connections between the course content and their practices in the field. One student illustrated the experience of critically viewing human behavior and the systems in occupational therapy.

> "Professor K always encourages us to think on a greater scale of how human behavior, actions, and systems affect other individuals around us, both locally and globally. This is critical to our education as Occupational Therapists who need an understanding of both micro and macro subjects…I'm grateful to have been a student of hers" (Online_Msg 171).

As highlighted in the principles of humanizing pedagogy, developing critical consciousness is fundamental to humanization. Teachers' efforts were often reflected in the way they make personal connections to learning or how they highlighted students' contributions to society in dismantling oppressive structures (Allen & Rossatto, 2009; Bell & Schniedewind, 1989). Teachers' humanizing pedagogical practices facilitated students' development of critical consciousness and critical reflection, leading to change-oriented action taken by students.

Discussion

The purpose of this study was to explore TSR in relation to student engagement by analyzing emotions of gratitude through the lens of humanizing pedagogy. Findings from an analysis of thank-you note messages highlight a few implications for research and higher education teaching practice. First, the affect-driven humanizing pedagogy had positive effects on TSR

and student engagement. Student engagement theories stress students' holistic engagement in higher education, including cognitive, behavioral, emotional, and social engagements (Bryson & Hand, 2007; Kahu, 2013). The practices of humanizing pedagogy demonstrated the positive impacts of teachers' care and humanness on students' academic, social, and emotional engagement. The affect-driven caring pedagogy improved students' engagement, enhancing TSR as well as social interaction among peers. Furthermore, students reported more interest in the subject matter because of their close relationship with the teacher. As demonstrated by students' appreciation of the teachers' care, compassion, and mutual respect, humanizing pedagogy stems from the relationship between students and educators (del Carmen Salazar, 2013), which leads to students' holistic engagement and development as empowered humans.

Second, the pursuit of humanizing pedagogy was practiced in four interconnected dimensions: teacher, student, content, and pedagogy. In higher education contexts, students spend relatively less time with teachers, which poses challenges to practicing humanizing pedagogy or pursuing "mutual humanization" (Freire, 1970, p. 74). Similar to the multidimensional nature of student engagement (Maguire et al., 2017), humanizing pedagogic practices in higher education contexts revealed teachers' multidimensional practices (Olszewska et al., 2021). Teachers engaged with students by humanizing themselves and students through caring pedagogy and a holistic approach. Teachers also practiced the humanization of the content by modeling their passion and commitment and educating students with authentic content. Such humanizing pedagogy was also manifested in their innovative and critical teaching practices. Through this multidimensional practice of humanizing pedagogy, students were able to act as co-constructors of knowledge in the learning process.

Lastly, although teachers' humanizing pedagogy made positive impacts on students' engagement and emotions, limited evidence indicated teachers' individual and collective endeavors toward developing critical consciousness. In an investigation of higher education instructors' humanizing pedagogic beliefs and practices conducted by Olszewska and colleagues (2021), the authors highlighted the instructors' commitment to societal change amidst the corporatization of higher education and aggressive neoliberalism that dehumanizes the higher education community (Davies & Bansel, 2007; Desierto & De Maio, 2020; Olszewska et al., 2021; Seal, 2018). A few teachers in this study made an impact through their commitment to societal changes, and many taught against dehumanizing pedagogy. These efforts had positive effects on students' holistic engagement and acted as a catalyst for student empowerment and future-oriented transformation. As such efforts are critical to engaging in 'mutual humanization' (Freire, 1970), these few teachers' attempts to change-oriented student action and transformation need to be amplified.

Implication and Conclusion

This study calls attention to the importance of practicing humanizing pedagogy, especially in higher education contexts where teacher-student interaction is constrained by the neoliberal agenda and corporatization of higher education institutions. The findings of the study demonstrated how a positive TSR formed through practicing humanizing pedagogy could

create emotions that made significant impacts on student engagement and empowerment. Through the humanization of learning and the invitational stances of instructors, students were motivated and willing to assume critical roles in the process of constructing knowledge and developing critical consciousness. Moreover, a program such as the Thank-a-Teacher initiative provides an effective way and a safe space for students to acknowledge emotions and communicate their needs while also motivating the instructors to further engage with the students. This is particularly important when students come from diverse social, cultural, linguistic, or racial backgrounds. In addition to offering students an opportunity to humanize their instructors and the process of learning, the program generates valuable information for instructors to understand diverse students' learning needs to provide equitable access to higher education.

The findings of this study suggest future directions for research and practice in higher education. Further examination of higher education teachers' principles and practices of humanizing pedagogy in and out of the classroom will provide in-depth insights into understanding effective pedagogical approaches focused on student engagement, empowerment, and transformation amid the diversification of higher education community that demands a range of students' emotional, social, and academic needs to be met. Furthermore, an analysis of the long-term effects of humanizing pedagogy can indicate various possibilities and promising approaches toward the humanization of higher education through TSR. As emphasized by del Carmen Salazar (2013), education should be a space for students to feel supported in their identity development through "achievement, purpose, power, and hope" (p. 141). The positive emotions created by humanizing pedagogy bring us hope–a central concept in Freierean ideology of humanization and liberation. Thus, we stress hope for higher education instruction to engender revolutionary and transformative education that will extend our individual and collective endeavors toward humanization and liberation.

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Effects of Board Game with Different Debriefing Preferences on Cyberbullying Prevention

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Abstract

The collaborative board game was predicted to be a potential game-based learning environment to improve students' knowledge of cyberbullying and prevent cyberbullying behaviors. The games with the debriefing method could enhance the quality of the learning environment for improving the cognitive domain. Scholars pointed out that the well-designed debriefing method has been less explored during cyberbullying-related game playing. This study examines students' cyberbullying knowledge and affection and the effects of debriefing preferences on the game. This study used a repeated measure quasi-experimental research method to explore 124 primary school students with different preferences of debriefing methods focusing on multimedia and non-multimedia functions. The two-way repeated measures ANOVA test was conducted to compare the knowledge and affection between groups of debriefing preferences. The findings of this study reveal that the students have slightly improved knowledge and affection. The collaborative multimedia debriefing group students showed the highest knowledge progression among the four groups. Meanwhile, students in the individual scaffolded debriefing group showed the most development of empathy and intention to defend. Students also had positive debriefing experiences with their methods and perceived that the learning environment helped them to improve their cyberbullying knowledge and encouraged their upstanding behaviors.

Keywords: debriefing methods, digital citizenship, game-based learning, life-long learning, quality education

Scholars have revealed the adverse effects of cyberbullying on youth's mental health and personality development (John et al., 2018; Kim et al., 2019; Kırcaburun et al., 2019; Lee et al., 2018; Okumu et al., 2020; Torres et al., 2020). According to UNICEF (2019), one-third of young people in thirty countries are accused of being a victim of online bullying. It has raised growing concern about children's cyber-wellbeing and demand for serious action to prevent bullying in online society. Due to the developmental factors and the necessity to access the Internet as a tool for learning and socializing, early adolescents and teens between 10–18 become the most vulnerable to engaging in inappropriate Internet behaviors (MacHimbarrena, 2021). Nevertheless, a previous study revealed that younger children (ages 9–12) tend to be more open-minded and responsive to adults' guidance in understanding cyberbullying (Ho et al., 2017). Hence, cyberbullying could be taught from a young age for youths to extend their cyberbullying coping knowledge and better develop decent long-term cyberbullying behaviors in the future. Therefore, scholars have suggested conducting well-designed instruction to promote students' knowledge and essential skills regarding cyberbullying (Mardianto et al., 2021; Tapingkae et al., 2020).

Using board games has been recognized as an effective supplement to in-class learning activities. Research across disciplines reveals that well-designed board game helps enhance learners' cognitive achievements through their abilities to motivate and engage students in the learning process across different age groups (Boghian et al., 2019; Cavalho et al., 2019; Lin & Cheng, 2022). It also helps practice appropriate behaviors, facilitates face-to-face interactions among people, decreases aggression, and increases empathy (Eriksson et al., 2021; Noda et al., 2019; Riggs & Young, 2016), especially when combined with effective debriefing. Debriefing has been recognized as a vital step in in-game and simulation-based learning. It can be described as a process where players reflect on their emotions and develop behavioral changes. It also connects in-game experiences and reality (Crookall, 2014; Fanning & Gaba, 2007; Kriz, 2003; Peters & Vissers, 2004). The debriefing session also includes reflecting on what players have experienced and resolving misconceptions (Van der Meij et al., 2013). Accordingly, a board game with a debriefing method has been practically used to support students in learning cyberbullying prevention since empathy plays an essential role in cyberbullying perpetration (Steffgen et al., 2011; Zych et al., 2019) and upstanding behavior (Sierksma et al., 2015).

Nevertheless, how the different debriefing methods influence primary school students' knowledge and affection of cyberbullying has not been well clarified in the digital citizenship/digital literacy field. This study draws on the above game with the debriefing method. Therefore, the current study developed and implemented a cyberbullying board game among the different debriefing methods with primary school students. That is to say, the novelty of this study is not only the development of cyberbullying board games but also empirical guidelines on the effective utilization of educational board games to enhance knowledge and desired affective behaviors, leading to sustainable cyberbullying prevention.

Related Work

Theoretical Background and Empirical Evidence of Board Game-Assisted Learning

The board game is a traditional type described as an activity in which players participate by moving or removing pieces on a board that utilizes a game format marked with patterns (Noda et al., 2019). The trend of board game-enhanced learning has risen from the growing attention of computer games in game-based learning research (Chang & Hwang, 2019) and other modern-day popular cultures (Bayeck, 2020). The board game does not require advanced technology, making it cost-effective and possible for novice designers. Moreover, it contains every core mechanism that fosters motivation and engagement, enabling learning and facilitating interactions between people (Plass et al., 2015; Poole et al., 2019; Zagal et al., 2006). Within the board game environment, the learners can experience, acquire, and try out their knowledge safely and enjoyably through simulations (DeKanter, 2005). Additionally, a board game can be played collaboratively, as a collaborative board game, in which the players coordinately overcome the challenges together. Collaboration in the game can reduce aggressiveness and increase empathy (Ewoldsen et al., 2012; Jerabeck & Ferguson, 2013). According to Greitemeyer and colleagues (2012), team playing increases feelings of cohesion as players assist each other in achieving a common goal. Plus, collaborative mechanisms can encourage the players to be concerned for the well-being of others.

Previous research showed the effectiveness of board games on students' learning achievements in science and technology education (Cardinot & Fairfield, 2019; Lin et al., 2019), as well as proven to be an effective tool in practicing good character and teaching social issue awareness (Anggraeni et al., 2022; Mostowfi et al., 2016). For example, Kuo and Hsu (2020) implemented an unplugged computational thinking board game called "Robot City" to teach seventh-grade students computational thinking and programming concepts. The results found that board games significantly helped students improve their learning achievements. In addition, the students who worked collaboratively gained higher scores than those who worked competitively against other groups. Zhang and colleagues (2021) created "CheMakers", the organic reaction mechanisms collaborative board game, to evoke undergraduate students' meaningful verbal interactions in organic chemistry class. The research results indicated that the board game successfully provided a meaningful learning experience for students and promoted their interest in the content subject. Cheng and colleagues (2019) developed an issue-situation-based board game named "Water Ark" to enhance the high school and above participants' knowledge, responsibility, empathy, and value of public benefits on climate change and water resource adaptation. The findings revealed that participants' behaviors regarding water resource adaption improved sustainably after playing the board game. Syahrial and colleagues (2022) implemented an Indonesian traditional board game with primary school students in classroom teaching to facilitate the development of students' good characteristics. The board game activity improved students' positive character values regarding love for the homeland, caring for the environment, and tolerance. However, less study investigates the potential of board games on the student's cognitive and affective impacts on the cyberbullying

topic. Therefore, it is worth showing the potential of well-designed board games to promote students' desired behaviors and prevent undesirable cyberbullying.

Theoretical Background and Empirical Evidence of Debriefing Methods

Debriefing is a systematic assessment process where learners make meaning of prior learning experiences by recalling, evaluating, and connecting those experiences to the real-world context (Fanning & Gaba, 2007; Kriz, 2003; Lederman, 1992; Peters & Vissers, 2004). It plays a crucial role in experiential learning, where actual learning occurs (Crookall, 2014; Reed et al., 2013). Regarding the experiential learning theory, knowledge is constructed via grasping and transforming experience (Kolb, 1984). Kolb and colleagues' (2014) model of the experiential learning cycle presents two modes of grasping experience: concrete experience and abstract conceptualization. Meanwhile, two modes of transforming experience are reflective observation and active experimentation. Concrete experience is gained through observations and reflections, which later assimilate into abstract concepts in which new inferences for action arise. These implications can be tested in real-world contexts and used as a guideline for creating new experiences. Kolb's experiential learning cycle expanded to various frameworks that provided debriefing stages with structured questions (Kriz, 2010; Lederman, 1992; Sims, 2002; Thiagarajan, 1994). Petranek's (1994) seven Es debriefing is one of the distinctive frameworks that cover all of Kolb's experiential phases. The model includes events, emotions, empathy, explanations, daily employment, and evaluation.

Debriefing is primarily provided in the learning activity as both formative and summative assessment depends on the purpose (Meguerdichian et al., 2019; Rudolph et al., 2008), as it makes misconceptions visible and often solved through the forms of guided discussion (Grund & Schelkle, 2020). Debriefing can be conducted as a team or individual (Tannenbaum & Cerasoli, 2012). Thus, grouping becomes another interesting factor studied in previous research. In a game-based learning context, scholars suggested that the effectiveness of debriefing based on group depends on how the game is played. Collaborative debriefing seems more efficient when gaming activity is undertaken as a team (Kriz, 2010). Individual debriefing might be enough if the gaming activity is designed to be played individually (Peters & Vissers, 2004). Nevertheless, both debriefing approaches yielded similar effects on learning in the previous research (Tannenbaum & Cerasoli, 2012). The other study found that individual debriefing increased students' knowledge more significantly than collaborative debriefing (Van der Meij et al., 2013), whereas team debriefing outperformed personal debriefing regarding self-efficacy and motivation (Bilgin et al., 2015). However, Verkuyl and colleagues (2019) conducted a study comparing the debriefing experience of nursing students after the clinical virtual gaming simulation whose work revealed that the students who debriefed by themselves had the least debriefing experiences compared to those who debriefed in groups. Hence, the effects of different debriefing methods on students' learning remain unclear in the existing literature, especially in game-based learning and cyberbullying education. Debriefing session in game-based primary teaching was often carried out through teacher-led discussions or interviews (Cheng et al., 2016; Piu et al., 2016), and some employed written or oral self-debriefing with scaffolded guidelines based on various debriefing models. For example, Bilgin

and colleagues (2015) provided the students with scaffolded questions of the EIAG experiential model, aiming to ignite their memories of past gameplay experiences through group discussion and individual writing, which helped them improve their game strategies.

However, Lennon (2010) discovered that the primary students largely responded to the oral debriefing in more detail than written debriefing. Moreover, few studies have highlighted the effects of different debriefing methods on primary school students' knowledge and affection of cyberbullying. Therefore, this study aims to cope with this shortcoming. The following research questions helped to frame this study:

> RQ1: Does the preference for debriefing methods influence primary school students' knowledge, attitude, empathy, and intention to defend themselves regarding cyberbullying behaviors?

> RQ2: Does the preference for debriefing methods influence primary school students' debriefing experiences?

The Current Development of Cyberbullying Board Game

In this study, the collaborative board game environment for fostering good behaviors and preventing cyberbullying was laid on by the above principles, as shown in Table 1.

Table 1
Principles and their Relationships of Cyberbullying Instructional Design of the Proposed Game Environment

Principle and definition	Characteristics of the proposed game environment
Board game: An activity in which players participate by moving or removing pieces on a board that utilizes a game format marked with patterns (Noda et al., 2019)	Utilizing game board, pieces movements, and game rules.
Collaborative learning: A learning approach where students work in a group of two or more and mutually seek knowledge or solutions through a joint problem-solving task by sharing information and learning goals, nevertheless completing the learning tasks individually (McInnerney & Roberts, 2009; Smith & Macgregor, 1992).	The students play the board game together in a group of 2 to 6, in which each player works on individual learning tasks to complete the game's main objective as a team by acquiring and sharing information and resources to solve the problems.
Collaborative board game: A board game activity in which the game conditions and mechanic	— The gameplay takes place on the game board (space).

Principle and definition	Characteristics of the proposed game environment
forces the players to work and communicate to win the game together by completing individual tasks. The collaborative game condition includes (Oksanen & Hämäläinen, 2014; Szewkis et al., 2011): — common goal — positive interdenpendence — coordination and communication — individual accountability — awareness — joint rewards Collaborative game mechanic includes (Schell, 2008): — space — objects, attributes, and states — actions — rules — skill — chance	— Rules of the game, such as consequences, constraints of action, and goal, were designed and implemented (rules). — Provides persistent game tasks, allowing players to practice appropriate behaviors connected to cyberbullying and empathy (skill). — The players play the game by manipulating game cards and pawns (objects, attributes, and states) to overcome problems and tasks (actions) or unforeseen and uncertain events in the game (chance). — The players work together toward the same goal and will win or lose the game as a team (common goal and positive interdependence). — The game board provides the players with a learning space for discussion and information sharing. The players must constantly communicate to plan strategies to complete the game tasks (coordination and communication). — Each player plays a different role with different abilities, which can benefit the team in achieving shared goals. A player's actions in each turn can affect the other players' condition in the next turn and overall results. (Individual accountability). — Each player holds a pawn and profile card indicating their current status (e.g., health, resources, location) and can be shown to the teammates (awareness).

Principle and definition	Characteristics of the proposed game environment
	— The proposed board game contains group rewards or punishments to reinforce the sense of collaborativeness (joint rewards).

The board game used in this study was designed and developed to cover cyberbullying, including cyberbullying concepts, elements, types, impacts, coping strategies, and empathy. According to the mechanism, we utilized collaborative gaming conditions (Oksanen & Hämäläinen, 2014; Schell, 2008; Szewkis et al., 2011) to optimize team cohesion and interactions between the team players. Moreover, the game design also implemented role-playing, non-playable characters (NPCs), and storytelling strategies to foster the students' perspective-taking and empathy. In the end, "Dysturbia" is a serious 2–6 multiplayer board game for students aged ten years and older. The game duration is around 30–40 minutes.

The game story occurs in a fantasy world where the main villain intends to invade the world with cyberbullies. The players play the role of six characters with different perks and special abilities. Each player is required to go through other situational challenges based on luck or decisions while working together to collect the treasure cards and resources to complete the game. Each player must randomly select the character to play to start the game. They will receive a character card and inventory card matching their selected character, which states their profile, special abilities, mental health status, and experience level. Before starting the game, the players determine their playing orders and play the game turn by turn, respectively. The game board is defined as the gaming space that the players can explore, whereas the explorable tiles have different levels of challenges. The players can call to challenge the situation on the tile they step on and draw a card from the situation card deck. Through this process, the players will learn about cyberbullying characteristics, types of cyberbullying, and coping strategies by interacting with the situations presented in the situation cards. Situation cards contain examples of cyberbullying situations that the players must read aloud to their teammates. It requires coping strategies to win the situations, making decisions (whether to help or ignore), and seeing the consequences of their decisions (getting rewards or points if they helped, or losing health or points if they ignored). To deal with in-game situations, the players must successfully stand up to the cyberbully and help a victim by matching forms of cyberbullying with the correct

defense card as it represents the appropriate coping strategies. Every successful challenge will activate a bystander symbolized by a blue cube token. Bystanders can combine into an upstander represented by blue column tokens, marking that tile as a safe zone from bullies. On the contrary, if the player fails the challenge, a black cube token representing a cyberbully will be added to the tile. It would cause the players who step on the tile to lose their health. This mechanic introduced the cyberbullying system and the roles of bullies, victims, bystanders, and upstanders.

In addition, with collaborative game mechanisms, "Dysturbia" allows the players to work as a team and share the same goal as they win or lose the game together. The players can help their teammates by healing, sharing resources, using their special abilities for their friends' sake, or equipping a power card designed to enhance the sense of empathy in the game. The players have to corporately plan, discuss gaming strategies, and actively contribute helpful information as they apply the content they have learned to advance problem-solving methods. The game was created with an interactive how-to-play video and handbook explaining the game rules to assist the students in playing the game or when a problem occurs.

Research Methodology

Participants

The participants in this study were 124 11–12-year-old students in four classrooms of a primary school in Thailand. They all enrolled in a science and technology course that included digital awareness topics based on Thailand's basic education core curriculum standard. All experimental procedures in this study involving human participants followed the ethical standards of the Institutional Review Board, Institute for Population and Social Research, Mahidol University (IPSR-IRB), Thailand (COA. No. 2020/12-431). Students who participated in this study were initially recruited based on the school administration board agreement. Informed consent forms were obtained from the student's parents or caregivers. All students were allowed to withdraw their participation during the experimental process. The participants comprised 55 boys (44.40%) and 69 girls (55.60%).

On the other hand, the inconsistent outcomes of the debriefing methods in the game-based learning literature suggest that more studies should be conducted to demonstrate which method properly improves learning regarding cognitive and affective domains, especially when used in collaborative board game environments. Therefore, in this study, the participants were asked for preferences for the debriefing method (DM) as follows:

> DM1: The collaborative scaffolded debriefing method was designed based on Kolb's (1984) experiential learning cycle and Petranek's (1994) seven Es of the debriefing model to provide the students with guidelines to reflect their thoughts with scaffolded open-ended questions (See Figure 1). In the concrete experience phase, the students were prompted to recall the situations and their feelings during the game. Next, the students observed and reflected upon the experience themselves and others in the

reflective observation phase. Through active reflections, the students constructed the new concepts of what they had just learned, called abstract conceptualization. Lastly, in the active experiment phase, the students were encouraged with questions to connect how the newly learned concepts can be transferred to the real world and test their knowledge in other hypothetical scenarios before summarizing and suggesting the proper future actions. Therefore, the students were asked to discuss in their group the experiences they faced in the game after finishing playing the collaborative board game. Then, they identified their learning and answered the scaffolded debriefing questions by writing them down on the paper.

Figure 1

Debriefing Phases and Scaffolded Debriefing Questions
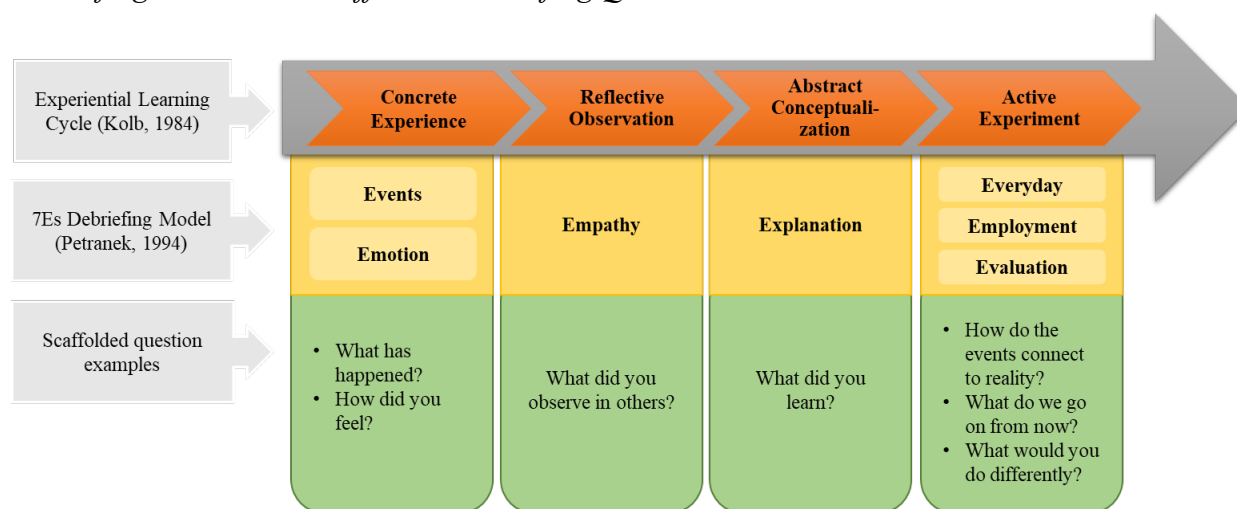
DM2: The collaborative multimedia debriefing method in which the video presentation of the in-game content summary was designed based on the same sequence of Kolb's (1984) experiential learning cycle and Petranek's (1994) seven Es of the debriefing model. The flow of the multimedia debriefing video is presented in Figure 2. The students in the experimental group with the collaborative multimedia debriefing were asked to watch the multimedia video after playing the collaborative board game and then discuss in their groups what they had just learned from the video and write down their conclusion on a paper.

Figure 2

The Flow of Debriefing Stages in the Multimedia Debriefing Video
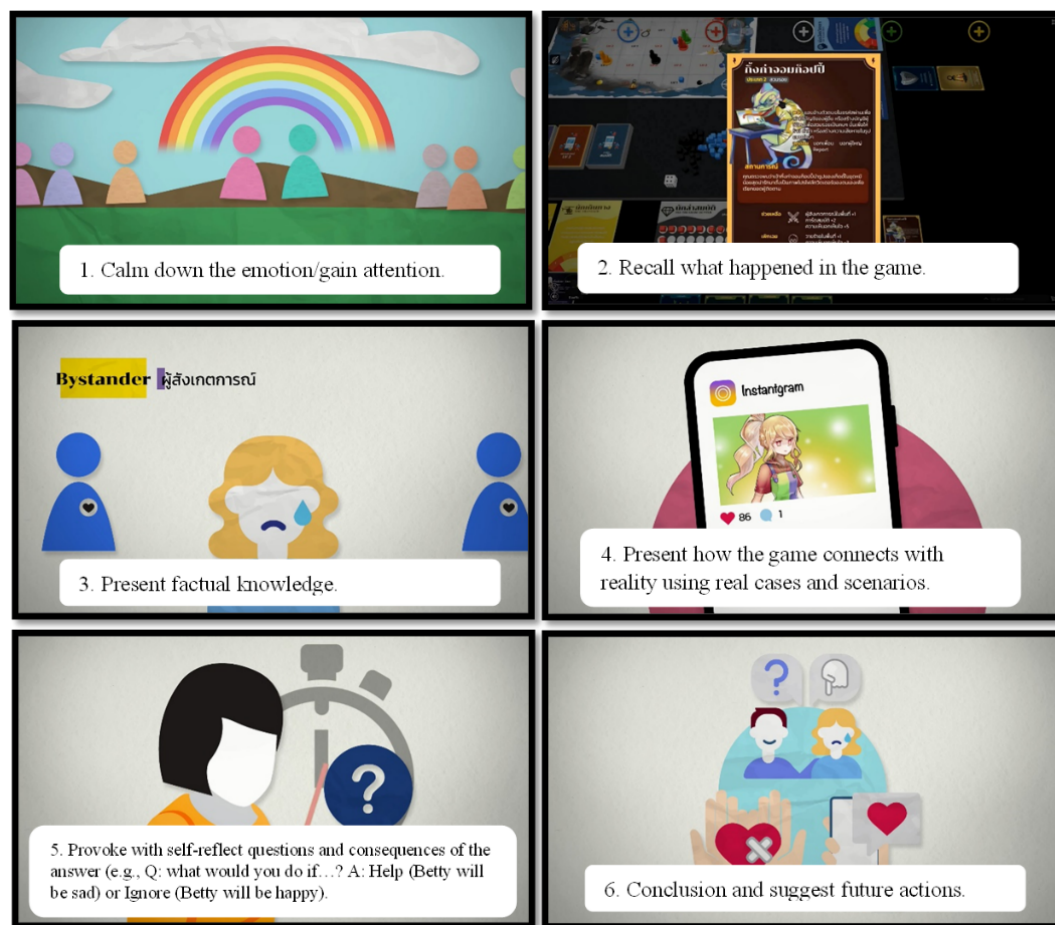
DM3: The mixed debriefing method integrates the collaborative scaffolded and multimedia methods. After finishing the collaborative board game, the students received the multimedia debriefing first. Later, they were asked to collaboratively discuss their gaming experiences in their groups and summarize the answers to the provided scaffolded debriefing questions by writing on the paper.

DM4: The individual scaffolded debriefing method is laid on a self-debriefing procedure. The students played the collaborative board game as a team, but they were debriefed separately as individuals. The students reflected on themselves, guided by scaffolded debriefing questions of Kolb's (1984) experiential learning cycle and Petranek's (1994) seven Es of the debriefing model. Afterward, the students wrote down the answers to the scaffolded questions on the paper.

Experimental Design

At the beginning of the activity, students were required to take the pre-test to evaluate their prior knowledge of cyberbullying behavior. After that, the researcher explained how to play

the collaborative board game for 10 minutes. The participants were then divided into 5 to 6 players based on their preferences to play the game, as the researcher monitored the process and ensured that the students followed the rules. The activity duration lasted for four weeks, 60 minutes per week. The data collection of mid-test scores was collected at the end of the second week using the same cyberbullying behaviors questionnaire. At the end of week 4, after playing the collaborative board game for 20 minutes, the debriefing sessions were conducted. That is to say, this study could divide the students based on their preferences into four groups: 32 DM1, 30 DM2, 30 DM3, and 32 DM4 students. Figure 3 presents the experimental process of this study.

Figure 3

The Research Design of the Repeated Measure Experiment
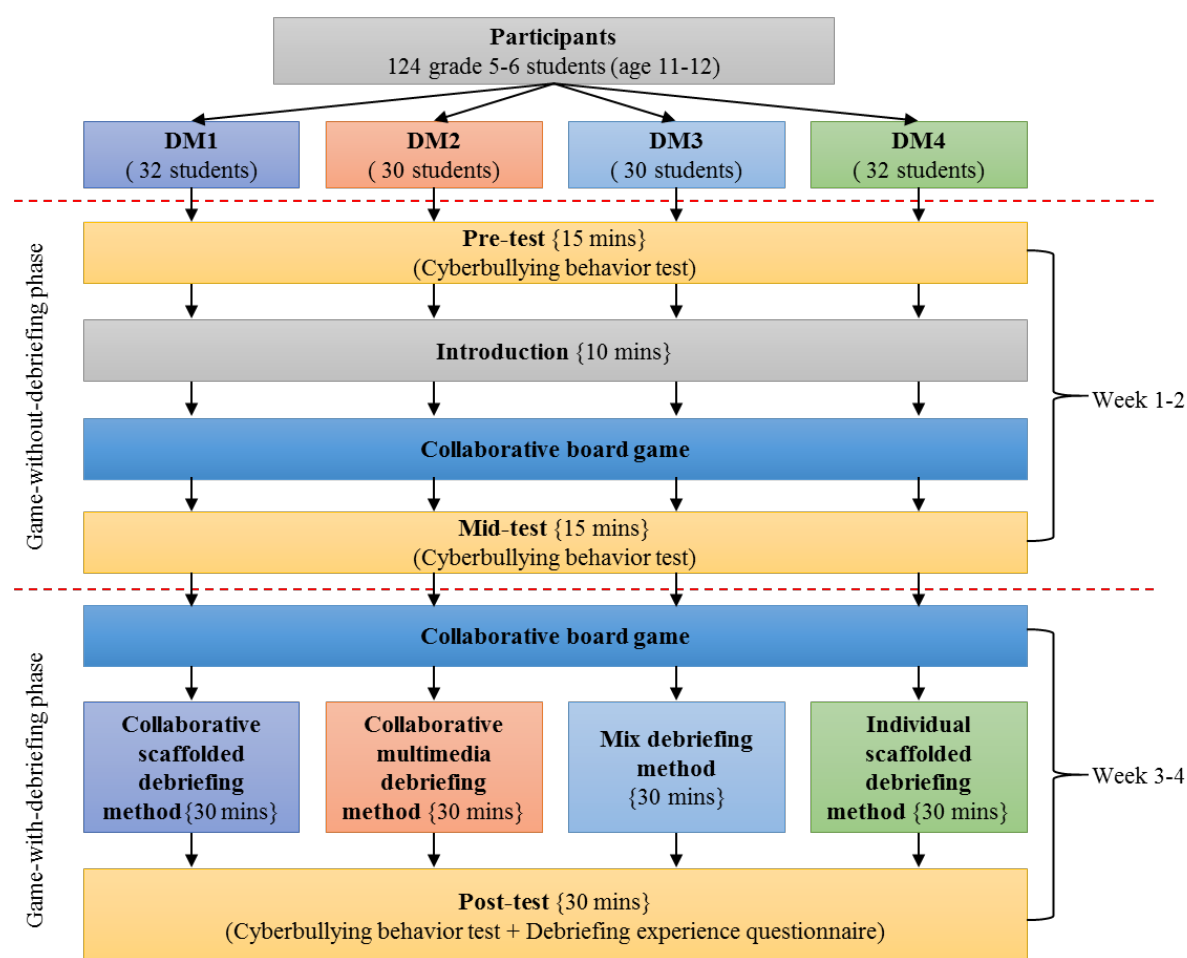
Right after the debriefing activities, all participants responded to the evaluation of cyberbullying behaviors as a post-test and the debriefing experience scale questionnaire in week 4. To observe the improvement of the students in within-group and between-group, the students' cyberbullying behaviors pre-test, mid-test, and post-test scores were collected for two-way repeated measures ANOVA analysis. Meanwhile, students' debriefing experience scores were compared among four groups.

Measurement Tools

A cyberbullying behaviors questionnaire was applied to measure students' learning outcomes to answer RQ1. The items were adopted from the bullying assessment tool (Nieh & Wu, 2018) and modified to fit the cyberbullying context, as shown in Appendix A. The questionnaire consists of 50 items covering cyberbullying behaviors in four aspects included with 20 items for cyberbullying knowledge aimed to evaluate students' understandings in terms of cyberbullying concepts using yes or no questions (e.g., cyberbullies are more likely lack of empathy) with Cronbach's α=0.73, 10 items in the aspect of attitude focused on exploring students' feelings toward cyberbullying using 5-point Likert scale range from 1 (strongly disagree) to 5 (strongly agree) (e.g., standing up to help the cyberbullied victim will get yourself into trouble) with Cronbach's α=0.66, 10 items aimed to assess empathy for victims using 5-point Likert scale items range from 1 (not at all uncomfortable) to 5 (very uncomfortable) (e.g., seeing someone was ridiculed on the Internet) with Cronbach's α=0.92, and 10 items on the aspect of intention to defend measuring students' degree of willingness to stand up for those who were cyberbullied using 5-point Likert scale items range from 1 (totally unwilling) to 5 (totally willing) (e.g., how willing are you to find a way to help a cyberbullied victim) with Cronbach's α=0.91. The Cronbach's alpha of the overall questionnaire was 0.88.

The students' debriefing experience questionnaire was modified from the Debriefing Experience Scale (DES) (Verkuyl et al., 2019) to answer RQ2. It was translated to Thai by the researchers and performed back translation by domain experts regarding content validity, as shown in Appendix B. The scale consists of 15 five-point Likert scale items describing the students' experience during the debriefing process, and the importance of those experiences from students' perspectives ranges from 1 (strongly disagree) to 5 (strongly agree) (e.g., debriefing helped me to analyze my thoughts). The scale's reliability in this current version was calculated with Cronbach's alpha of 0.92.

Results

Comparisons of Students' Scores Based on the Debriefing Preferences

To determine whether the students' cyberbullying behaviors of each group changed during and after the learning activity, the participants' cyberbullying pretest, mid-test, and post-test scores were compared using repeated-measures ANOVA. In this process, the negative reverse scoring items were reversed, and the normality of the data was tested to ensure there was no violation of the statistic assumptions. The mean scores of students' cyberbullying behaviors in terms of knowledge, attitude toward cyberbullying, empathy for victims, and intention to defend the victims, including the F-values and effect sizes of each dimension, are presented in Table 2.

Table 2

Comparison of Students' Cyberbullying Behaviors Mean Scores among Pre-, Mid-, and Post-Test

Term of Cyberbullying behaviors	Group	N	Pre-test M (SD)	Mid-test M (SD)	Post-test M (SD)	F	Partial Eta Squared	Pairwise comparison
Knowledge	DM1	32	9.56 (3.56)	11.13 (3.81)	12.31 (3.68)	6.70*	.18	Pre < Post
	DM2	30	10.27 (3.05)	12.10 (3.48)	13.58 (3.43)	9.17*	.24	Pre < Post
	DM3	30	11.18 (4.30)	12.20 (3.62)	14.12 (4.72)	5.09*	.15	Pre < Post
	DM4	32	10.97 (3.04)	10.56 (2.54)	11.49 (4.41)	0.99	.03	
Attitude	DM1	32	36.03 (4.12)	35.53 (5.39)	36.37 (5.09)	0.39	.01	
	DM2	30	36.43 (3.58)	37.70 (3.86)	37.24 (5.59)	0.76	.03	
	DM3	30	37.20 (5.02)	37.41 (3.93)	38.84 (4.62)	1.58	.05	
	DM4	32	34.13 (4.90)	34.62 (4.67)	36.39 (5.99)	2.28	.07	
Empathy	DM1	32	31.12 (8.32)	31.69 (6.88)	34.62 (9.27)	2.16	.07	
	DM2	30	29.47 (8.76)	28.37 (7.53)	31.21 (10.19)	1.02	.03	
	DM3	30	28.63 (8.64)	28.20 (8.18)	31.79 (11.02)	1.37	.05	
	DM4	32	24.25 (6.15)	27.81 (7.44)	32.35 (9.57)	17.15*	.36	Pre < Mid < Post
Intention to defend	DM1	32	35.16 (7.51)	32.28 (8.67)	35.10 (8.87)	2.11	.06	
	DM2	30	32.50 (8.28)	33.43 (7.41)	33.99 (8.11)	0.42	.01	
	DM3	30	31.73 (8.85)	30.93 (7.43)	36.68 (8.85)	5.07*	.15	Pre < Post; Mid < Post
	DM4	32	27.84 (8.40)	30.59 (6.73)	33.72 (9.27)	7.82*	.20	Pre < Mid; Pre < Post

*$p < .05$.

As shown in Table 2, regarding the aspect of cyberbullying knowledge, a significant improvement was found across the pre-, mid-, and post-test data in DM1 (*F*=6.70, p<0.05, ES=.18), DM2 (*F*=9.17, p<0.05, ES=.24), and DM3 (*F*=5.09, p<0.05, ES=.15). It indicates the small to medium magnitude of the improvement from pre-test to post-test of the three groups. The affective aspects include attitude toward cyberbullying, empathy, and intention to defend despite no significant differences between pre-, mid-, and post-test scores regarding students' attitudes. Students' empathy scores of DM4 showed significant differences among pre-, mid-, and post-test scores (*F*=17.15, *p*<0.05, ES=.36). A pairwise comparison further determined that the students' empathy significantly raised after the mid-test, then later continued to improve

after the debriefing session. The partial eta squared value was 0.36, suggesting a medium magnitude of empathy improvement.

The repeated measures analysis further revealed the significant changes in the students' intention to defend over pre-, mid-, and post-test scores in DM3 (F=5.07, p<0.05, ES=.15) and DM4 (F=7.82, p<0.05, ES=.20). A post hoc test unveiled that the post-test scores in DM3 were significantly higher than pre- and mid-test scores, indicating a significant increase in students' intention to defend after the collaborative mixed-method debriefing session. Meanwhile, the DM4 students' mid-test scores of intention to defend were significantly higher than the pre-test after students participated in the learning activities for two weeks. The intention to defend post-test scores also remained higher than the pre-test scores in the DM4 students, meaning they developed their intention to defend the cyberbullying victims significantly more than before the learning intervention.

Moreover, the two-way repeated-measures ANOVA was performed to compare the students' pre-, mid-, and post-test scores among four preferences (i.e., DM1, DM2, DM3, DM4). The groups were compared and explored the overtime changes and between-group differences of the four debriefing methods from pre-, mid-, and post-test. Regarding the term of knowledge, the main effect of time shows a small effect size regarding the students' cyberbullying knowledge ($F_{(2,240)}$=18.62, p<0.05, ES=.13). However, there was no significant effect on students' scores among the four debriefing methods ($F_{(3,120)}$=1.65, p>0.05, ES=.06). There was also no significant interaction between the gains of the four debriefing methods among the cyberbullying knowledge pre-, mid-, and post-test ($F_{(6,240)}$=1.53, p>0.05, ES=.04). These results suggest that the four groups had similarly progressed their knowledge about cyberbullying as time went on, all debriefing methods were similarly effective on the collaborative board game. There were also significant effects of the debriefing methods on students' attitude ($F_{(3,120)}$=3.90, p<0.05, ES=.09). However, there was no significant main effects on time on students' attitude scores ($F_{(2,240)}$=3.17, p>0.05, ES=.03), as well as no significant interaction among students' pre-, mid-, post-test scores at different time points ($F_{(6,240)}$=0.70, p>0.05, ES=.02). That is to say, the method students were debriefed after learning about cyberbullying made a small difference in their attitudes, but as time went on, their attitudes did not change much, regardless of the debriefing method used. The interaction between the method and the time was also not significant, indicating that no particular combination of method and timing was notably effective in changing attitudes. Similarly, it indicates a significant main effect of time ($F_{(2,240)}$=10.81, p<0.05, ES=.08) and four preference groups on students' empathy scores ($F_{(3,120)}$=2.92, p<0.05, ES=.07). It confirmed that the students' empathy gains overtime were comparable among the four methods. Moreover, time had a significant main effect on the student's intention to defend. The students of four groups manifested a significant change of intention to defend overtime ($F_{(3,360)}$=6.31, p<0.05, ES=.05). However, there was no significant interaction among the four groups and the students' pre-, mid-, and post- intention to defend scores ($F_{(3,360)}$=2.41, p>0.05, ES=.09). These results indicates that the students generally became more empathetic over time. This increase was similar no matter which group they were in. The methods used in the four groups affected empathy, but the difference was small. It also revealed that the student's willingness to

intervene in defense of others increased over time, but this increase was not significantly different among the four groups, nor did it depend on the combination of group and time. In summary, there are different results among the four groups on knowledge, attitudes, empathy, and intention to defend against cyberbullying, as shown in Table 3. The mean scores of the four groups increased over time (i.e., pre-, mid-, and post-test). It is highlighted that even though the four groups have shown a homogeneous development of overall cyberbullying behaviors, the groups who received the debriefing methods with collaborative elements (i.e., DM1, DM2, DM3) manifested a significant development of cyberbullying knowledge in which collaborative multimedia debriefing outperformed the other debriefing methods. Meanwhile, the individual scaffolded debriefing (DM4) exhibited outstanding results regarding empathy and intention to defend scores. The similar results among the four groups are attitude changes, empathy, and intention to defend improvement in the collaborative debriefing groups.

Table 3
Summary of Cyberbullying Behaviors for the Four Groups over Time

| Term of cyberbullying behavior | F-value | | | | | | |
| | Within group | | | | Between groups | | |
	DM1	DM2	DM3	DM4	Pre-test	Mid-test	Post-test
Knowledge	6.70*	9.17*	5.09*	0.99	1.37	1.68	2.65
Attitudes	0.39	0.76	1.58	2.28	2.71*	3.33*	1.44
Empathy	2.16	1.02	1.37	17.15*	4.28*	1.82	0.56
Intention to defend	2.11	0.42	5.07*	7.82*	4.28*	0.90	0.71

*$p < .05$.

Comparisons of Students' Debriefing Experience Scores

To investigate the students' debriefing experience, students' debriefing experience data were analyzed and presented by descriptive statistics. It was found that the DM1 students rated their debriefing experience slightly higher than the other groups (M=3.72, SD=0.56), followed by the DM3 students (M=3.57, SD=0.77), and the DM2 students (M=3.56, SD=0.72) respectively. Meanwhile, the DM4 students showed only neutral agreement toward the debriefing method (M=3.38, SD=0.50). However, the ANOVA results yielded no significant difference among the debriefing experiences of the students in the four different groups ($F_{(3,123)}$=1.52, p>0.05). That is to say, four debriefing methods were definitively rated better or worse than the others by the students. The students manifested high to medium agreement, meaning that each debriefing method helped them understand more about the cyberbullying content from the game and make a connection to the real-life context. Interestingly, the groups with collaborative debriefing elements (i.e., DM1, DM2, DM3) rated the overall debriefing experience high.

Discussions and Conclusions

The present study investigated the effects of a collaborative board game with different debriefing methods on students' behavioral changes in knowledge, attitudes toward cyberbullying, empathy for cyberbullying victims, and intention to defend. Moreover, we

examined the debriefing experiences of the students who participated in the learning intervention.

To answer and discuss RQ1, the repeated measures experimental results revealed that the students who preferred the collaborative debriefing features showed significant improvement in cyberbullying knowledge scores after the debriefing session with a large effect size. This result indicates that the collaboratively structured debriefing supported students in developing their cyberbullying knowledge. That is because knowledge acquisition is supported through discussion in a collaborative debriefing environment. Instead of reflecting on the newly learned knowledge and trying to make sense of it alone, the groups can learn from reflecting on their experiences and emotions while observing others and comparing those of others with their own, leading to the justification of knowledge and a better understanding of the information being shared (Dillenbourg & Schneider, 1995). Moreover, the collaborative multimedia debriefing group (DM2) showed a high progression of knowledge with the largest effect size among the four groups. In addition, in terms of the affective aspects, the utmost development of behaviors such as empathy and intention to defend was seen in the individual scaffolded debriefing group (Table 1). This finding conversed with our hypothesis from previous research (Kriz, 2010; Verkuyl et al., 2019). The reason could be that affective behaviors are internal feelings that require an individual's emotional regulation and judgment (Gerdes & Segal, 2009). Consequently, such cognitive processing could be fostered more effectively when the learners have an appropriate time and space to independently reflect on the learning experiences. Consistent with the finding of Van der Meij et al. (2013) that with individual debriefing, the students were not distracted by the opinions of others and could be more focused on reflecting on their feelings and understanding of the game features.

Therefore, this study answers RQ1 that the preference for debriefing methods influenced students' knowledge, attitude, empathy, and intention to defend regarding cyberbullying behaviors. That is to say, DM3 using multimedia elements in presenting the learning content based on the structured scaffolding phases of Kolb (1984) and Petranek (1994) outstandingly helped support the students' knowledge gains about cyberbullying. The previous research backed up this, uncovering that the use of multiple media, such as text, audio, video, and animation, could facilitate students' cognitive information processing, relieve the cognitive loads, and enhance learning rather than a static medium (Altinpulluk et al., 2020; Mayer, 2007). Bainbridge and colleagues (2022) also supported that animated learning materials can improve students' meaningful and transferable learning.

Regarding RQ2, the preference for debriefing methods influenced students' debriefing experiences. That is to say, the students who learned with the cyberbullying collaborative board game and different debriefing preferences had positive debriefing experiences. The high level of agreement toward each item reflected that most students considered the debriefing sessions a helpful tool that helped them better comprehend the game's meaning and connect the in-game content and reality. That is because debriefing is the purposeful reflection to reflect, evaluate, and discuss the different perspectives of players' emotions and behaviors during the game and relate in-game experiences to the real-world context (Crookall, 2014; Fanning & Gaba, 2007;

Kriz, 2010; Peters & Vissers, 2004). After the gaming experience, the students need a way to help them consider the meaning behind those experiences more deeply, making in-game content more understandable and transferable. In this current study, we apply structured self-debriefing methods to prompt the students to organize their feelings and systematically reflect on their learning after the gaming experience. Moreover, the students who were debriefing with the collaborative debriefing methods expressed higher acceptance of the debriefing session than those who were debriefed individually. It conforms to the research conducted by Verkuyl and colleagues (2019), who started the idea that collaborative debriefing should be more beneficial in supporting the learners with opportunities to exchange and get a deeper understanding through discussion and better their performance by learning from other members' experiences than those who learn by individual debriefing.

As mentioned above, this study highlighted that using multimedia materials and scaffolding questions provided the adequacy of resources that enhanced the convenience of the learner-centered learning process and reduced the complexity of board game mechanics and complicated rules. Equipping the students with only self-directed learning resources without any clear directions and guidance on how to debrief themselves, the students will be more likely to depend on their own individual learning experiences and reflection skills alone (Fanning & Gaba, 2007; Lapum et al., 2019; Verkuyl et al., 2019). The quality of debriefing could differ based on students' self-reflective abilities. To assure the best possible learning outcome from game-based learning, this study suggests that a well-structured debriefing principle should be delivered together with well-designed learning material that facilitates the students to recall and reflect on their learning through game experiences. Furthermore, combining collaborative and individual debriefing in the gaming learning activity may convey greater learning benefits.

Contributions

Cyberbullying is a crucial worldwide issue. This research designed a cyberbullying board game based on collaborative game mechanics and developed debriefing materials to assist students' self-debriefing experiences. Moreover, we investigated the different effects of debriefing methods to bridge the gaps in the existing literature and gain further insight into students' good behavior development and how they perceive their improvement throughout learning activities. The study's findings provided a valuable guideline in the design and practice for educational game designers, teachers, and educators in fostering social issue knowledge and awareness that leads to sustainable solutions. Even though the results revealed the insignificant effects of debriefing methods over others, this study helped clarify the pros and cons of each method for future practice. Most importantly, it paves the path to more study effective debriefing methods within a game-based environment. This study provided empirical validation of the game-based learning approach to teaching cyberbullying. It proposed the integration of game-based learning and a collaborative gaming approach in designing a cyberbullying board game with effective self-debriefing strategies that can be used instead of the skilled debriefers if the debriefers are unavailable. Collaborative scaffolded debriefing in parallel with multimedia debriefing video can help stimulate students' discussions, and the combination was considered

the most effective debriefing method for knowledge improvement. For the improvement of attitudes, empathy, and intention to defend, individual scaffolded debriefing was considered the most effective one. However, the individual debriefing group students showed the lowest debriefing experiences. To ensure the debriefing quality and good experience, this study suggests that the students should be allowed to discuss with peers, together with enough time to reflect on the knowledge they learned.

Limitations and Suggestions for Future Research

Although the recent study has uncovered the uninvestigated area regarding debriefing methods for learning about cyberbullying with board games, some aspects have not yet been explored. According to the outstanding outcome of the individual scaffolded debriefing in developing students' affective behaviors, multimedia material combined with scaffolded debriefing questions should be further studied to support students' reflective process. The factors that may interfere with game-based learning performance should be identified and included in the study (e.g., gender, gaming experiences, and learning motivations). In practical application, collaborative board game mechanics may take a long time to learn and comprehend in a classroom setting. Therefore, the game's complexity must be simplified and optimized to suit students of different ages and classroom contexts. Finally, the data collection of this study was obtained and interpreted from only self-reported ratings. Hence, alternative ways of data collection, such as peer-reported or teacher-reported surveys, learning logs, and behavioral learning pattern analysis, could be used to deepen the understanding of students' learning behaviors.

Acknowledgment

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Appendix A

The cyberbullying behaviors questionnaire items

Aspects	Items
Knowledge (20 items) (Cronbach's α=0.73)	1. People who cyberbully others are not malicious but just for fun. 2. Cyberbullies are more likely to lack empathy. 3. Being cyberbullied makes a person stronger. 4. Most people feel uncomfortable seeing cyberbullying. 5. Sharing or commenting on cyberbullying messages is considered encouraging cyberbullying. 6. Cyberbullying can affect people's lives. 7. Cyberbullying prevention will be the most effective if everyone ignores and works together to solve the problem. 8. Typing sarcastic messages online for fun and making the targeted person uncomfortable is considered cyberbullying. 9. Cyberbullies can be changed. 10. Cyberbullying is not as serious as face-to-face bullying, so there is no need to stop it specifically. 11. Being cyberbullied can affect us psychologically. 12. The cyberbullied person because they are too sensitive or overthinks. 13. Everyone has the possibility of being cyberbullied. 14. Passive bystanders can make cyberbullying worse. 15. As long as you are willing to lend a helping hand, you have the opportunity to stop cyberbullying. 16. The victim must find a way to save themselves instead of asking for help. 17. Deliberately preventing/blocking a specific person from a chatroom to make them feel uncomfortable is a kind of bullying. 18. Cyberbullying incidents can be prevented. 19. Criticising others maliciously on the internet is also cyberbullying. 20. Cyberbullying incidents affect bullies, victims, and bystanders.
Attitude (10 items) (Cronbach's α=0.66)	1. Standing up to help the victim will get you into trouble. 2. These cyberbullying incidents are just rants between classmates. 3. After a cyberbullying incident occurs, it is more beneficial for the students to deal with it by themselves than the teacher or parents. 4. If someone is cyberbullied, you should find a way to help the victim. 5. Everyone is equal; no one should be cyberbullied. 6. The cyberbullying incident will increase the cohesion among students. 7. Not informing teachers or parents after a cyberbullying incident is best. 8. Cyberbullies are usually very powerful. 9. The person being cyberbullied has problems. 10. Cyberbullying incidents are bound to happen.

Empathy (10 items) (Cronbach's α=0.92)	1. Seeing someone was ridiculed on the internet. 2. Seeing someone posting a sad status online. 3. Seeing an actor was begrudged nicknames on the internet. 4. Seeing someone was intentionally blocked from an open chatroom or an online game. 5. Seeing someone say bad things about them behind their back in the online community. 6. Seeing someone's photo was posted online without the owner's permission. 7. Seeing someone was scolded on the internet. 8. Seeing a friend being teased on social media. 9. Seeing the news of someone trying to commit suicide due to being cyberbullied. 10. Seeing someone was impersonated online.
Intention to defend (10 items) (Cronbach's α=0.91)	1. How willing are you to find a way to help a cyberbullied victim? 2. How willing are you to stop the bullies from cyberbullying people? 3. How willing are you to report cyberbullying? 4. How willing are you to be a peacemaker and try to mediate a cyberbullying situation? 5. How willing are you to accompany the victim? 6. How willing are you to comfort the victim? 7. How willing are you to find a trusted adult to help the victim? 8. How willing are you to tell people not to join cyberbullying others? 9. How willing are you to seek help if you were cyberbullied? 10. How willing are you to tell teachers or trusted adults if you were cyberbullied?

Appendix B

Debriefing Experience Scale (DES)

Item
1. Debriefing helped me to analyze my thoughts.
2. Debriefing confirmed the decisions I made in the game.
3. The debriefing environment was physically comfortable.
4. Unsettled feelings from the game were resolved by debriefing.
5. Debriefing helped me to make connections in my learning.
6. Debriefing helped make sense of the game.
7. Debriefing provided me with a learning opportunity.
8. Debriefing helped me to find meaning in the game.
9. My questions from the game were answered by debriefing.
10. Debriefing helped me to become more aware of helping cyberbullying victims.
11. Debriefing helped me to become more aware of not cyberbullying others.
12. Debriefing helped me to clarify problems.
13. Debriefing helped me to make connections between theory and practice.
14. There was sufficient guidance during the debriefing session.
15. Debriefing allowed me to reflect on my actions during the game.
16. I had enough time to debrief thoroughly.

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The editorial team would like to thank the following reviewers for their contributions to the peer review for this issue of the journal. Their dedication and assistance are greatly appreciated.

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